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PHYSICAL OCEANOGRAPHIC, BIOLOGICAL, AND CHEMICAL DATA--SOUTH ATLANTIC COAST OF THE UNITED STATES

Gill Cruise 8

SPECIAL SCIENTIFIC REPORT–FISHERIES No. 303

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

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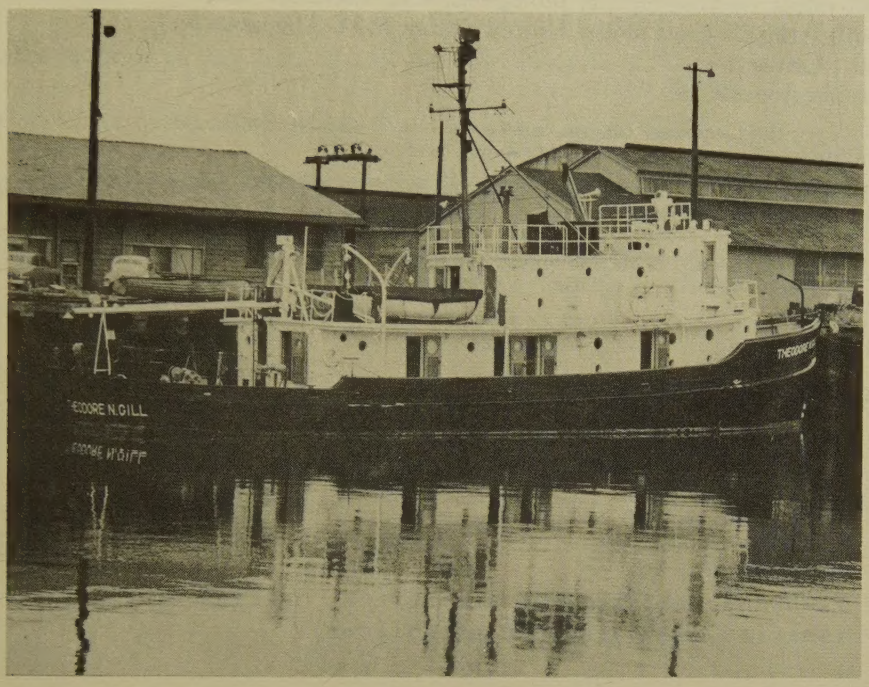

PHYSICAL OCEANOGRAPHIC, BIOLOGICAL, AND CHEMICAL DATA SOUTH ATLANTIC COAST OF THE UNITED STATES M/V THEODORE N. GILL CRUISE 8

by

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PHYSICAL OCEANOGRAPHIC, BIOLOGICAL, AND CHEMICAL DATA SOUTH ATLANTIC COAST OF THE UNITED STATES M/V THEODORE N. GILL CRUISE 8

This is the eighth in a series of reports presenting basic data from cruises of the Theodore N. Gill in waters off the South Atlantic coast of the United States.

Background of the investigations; objectives; procedures on station; and chemical, biological, and oceanographic methods and procedures were presented in the report for Cruise 1 (Anderson, Gehringer, and Cohen, 1956). Biological methods and procedures were the same as those modified on Cruise 3 (Anderson and Gehringer, 1957). The basic station plan is shown in figure 1.

NARRATIVE ACCOUNT OF CRUISE 8

The Gill departed from Brunswick, Georgia on August 27, 1954 to begin the southern leg of the cruise. The passage of three hurricanes delayed operations during the early stages of the cruise and caused cancellation of special stations 5 through 8 and the standard station, all of which were usually worked at the start of a cruise. On August 29, in the vicinity of Grand Bahama Bank, the vessel experienced a damaged rudder and was towed by the U. S. Coast Guard to Miami, Florida for repairs. These were completed on September 3, and the vessel proceeded to Nassau, B.W.I., arriving on September 4. Equipment was loaded and installed in Nassau for special ambient work by Columbia University personnel, but strong winds and continued heavy rain squalls were experienced during the time allotted for the work, and it was cancelled to avoid disruption of the remainder of the cruise schedule. The Gill sailed on September 10 from Nassau for regular station 1, arriving at and occupying that station on September 11. Good weather prevailed during the remainder of the southern leg of the cruise, and the vessel occupied regular stations 1 through 34, and special station 9, arriving back in Brunswick, Georgia for supplies on September 15.

On September 20 the vessel departed Brunswick to begin the northern leg of the cruise. Adverse weather characterized the early stages of this leg and this, together with Loran trouble, forced the vessel into Charleston, South Carolina on September 22. The weather improved on September 25, and operations were resumed. Regular stations 40, 41, 42, and 76 and special stations 1 through 4 were not occupied because of adverse weather conditions. The vessel returned to Brunswick on October 1.

Seventy-seven hydrographic stations were occupied (76 regular and 1 special) with Nansen casts and bathythermograph lowerings on each station. Determinations for dissolved oxygen were run aboard vessel for all stations and all levels except for regular stations 32, 33, and 34. Water samples were obtained from all stations and levels for shore analysis of salinity, total phosphorus, inorganic phosphate, carbohydrates, proteins, and nitrate-nitrite. Bottom samples were taken with a modified orange-peel dredge on those stations where several samples had not been collected on previous cruises. Attempts were made to secure bottom sediments with a modified Phleger corer on a number of inshore stations, but the bottom over most of this area was too hard for effective penetration by this corer. Secchi disk readings were taken during daylight hours when conditions permitted. Oblique plankton tows (surface tows in shallow water) were made with the Gulf III all-metal plankton sampler on all stations occupied. Fifty runs between stations were obtained with the Gulf IA high-speed plankton sampler, and 28 runs were obtained with the continuous plankton sampler. Dip-net fishing was carried out both at night (under a light) and during the day while on station--results were fair on the southern leg and poor on the northern leg. Trolling with feather and bone jigs between stations yielded fair results.

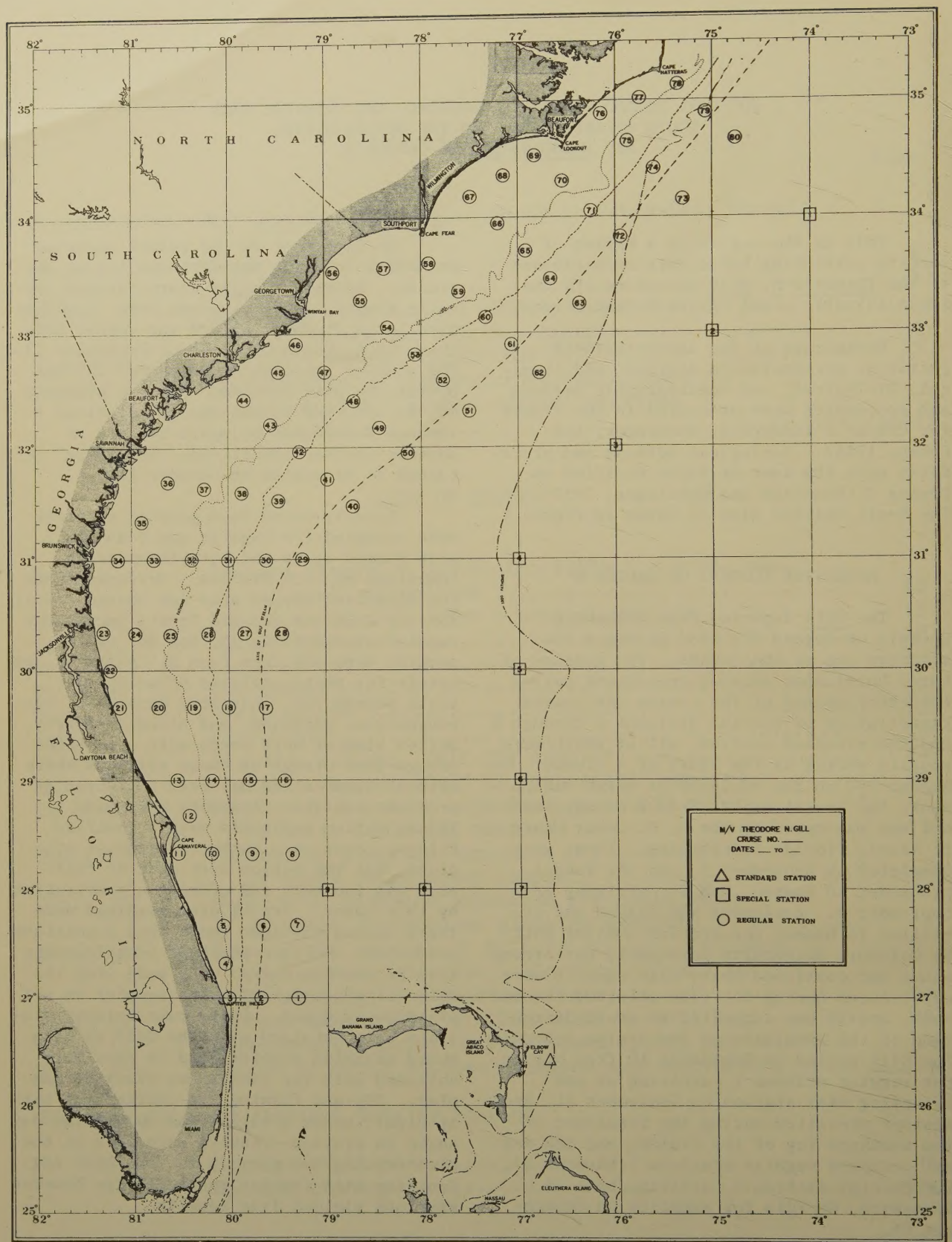

Figure 1.--Basic station plan.

Figure 2.--Track chart.

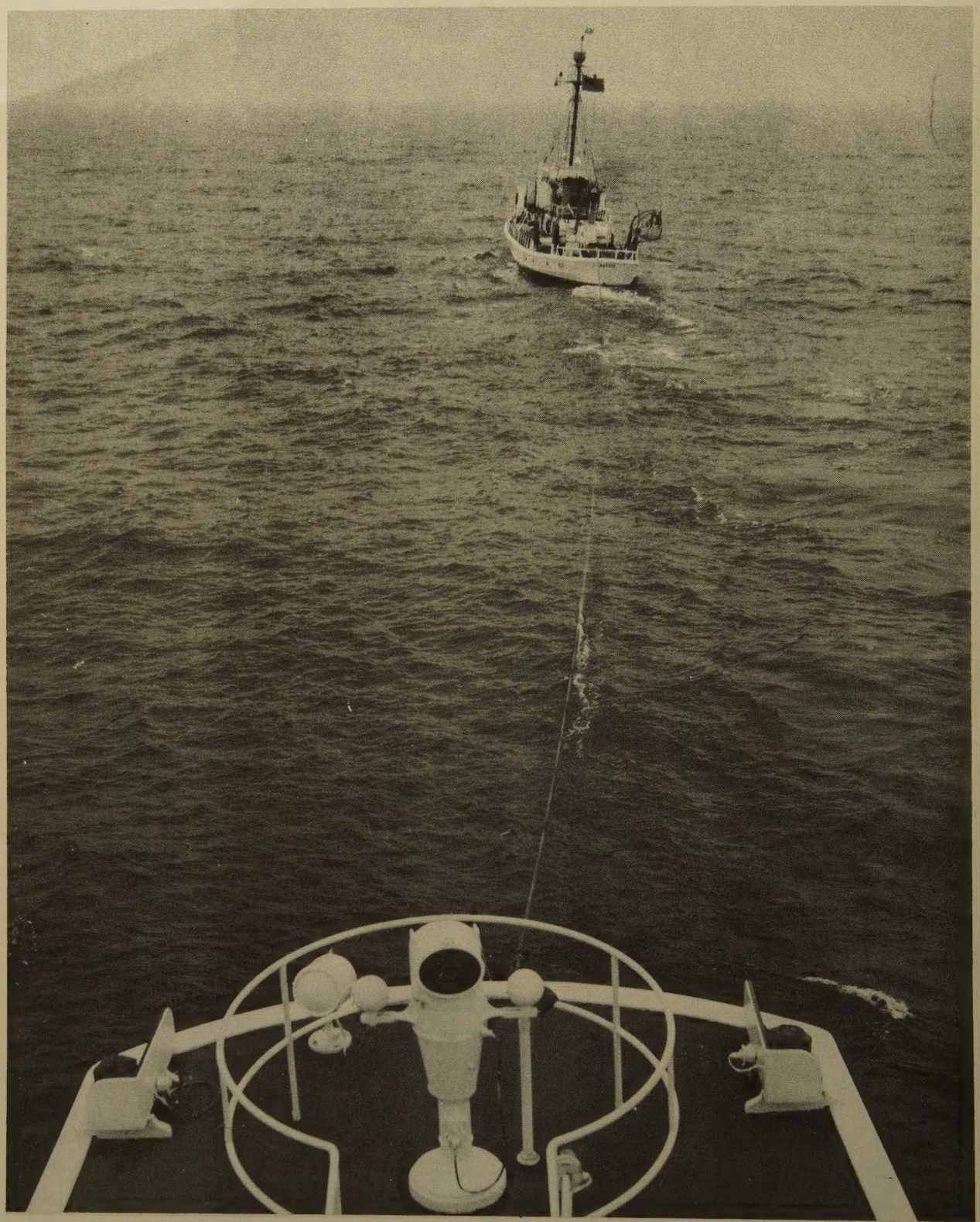

Figure 3.--The Gill, with damaged rudder, under tow of U.S. Coast Guard Cutter Agassiz.

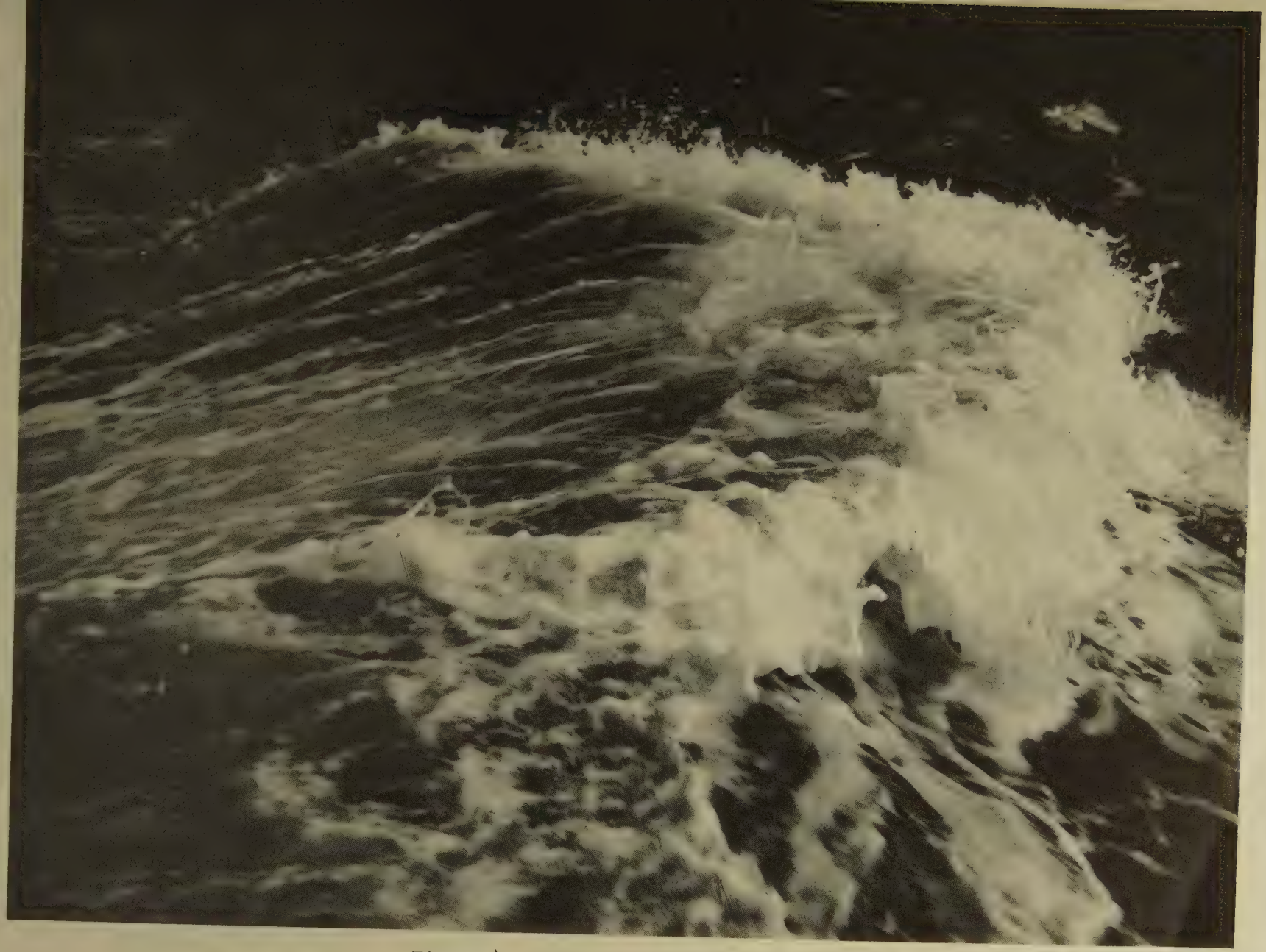

Figure 4.--Difficult working conditions.

Twelve drift bottles were released for the Woods Hole Oceanographic Institution on each of the inshore stations. The bottles used were 8-ounce, clear glass soda bottles approximately 22 cm. high and 6 cm. in diameter. To reduce wind drift the bottles were ballasted with clean dry sand, so that they floated vertically at or near the surface. The tabulated results are given in table 16.

Scientific personnel participating in the cruise were:

I. Southern Leg

Fish and Wildlife Service:

William W. Anderson	Chief Scientist
Jack W. Gehringer	Fishery Research Biologist
Edward Cohen	Chemist
Charles P. Goodwin	Chemical Aid

Navy Hydrographic Office:

Melvin Light	Senior Oceanographer
E. S. McKay	Oceanographer
William Tolbert	Oceanographer

Office of Naval Research:

E. L. Arnold, Jr.	Fishery Research Biologist (U. S. Fish and Wildlife Service, Galveston, Texas)

II. Northern Leg

Fish and Wildlife Service:

Jack W. Gehringer	Chief Scientist
V. L. Strock	Administrative Assistant
Clyde C. Bryant	Chemical Aid
Charles P. Goodwin	Chemical Aid

Navy Hydrographic Office:

Melvin Light	Senior Oceanographer
E. S. McKay	Oceanographer
William Tolbert	Oceanographer
Robert O. Zeller	Oceanographer

EXPLANATION OF DATA SHEETS AND TABLES

Oceanographic and Chemical

Each of the items appearing on the station data pages is explained below. All doubtful data are indicated and were not used in the construction of the curves from which the interpolated values (standard depth values) were derived. Observed values which were obviously false were omitted entirely. A dash in a table means that no value was available. Interpolations for standard depth values for temperature, salinity, sigma-t, and oxygen are IBM calculations; those for the chemical constituents were derived from straight lines between observed values.

The profiles of salinity, temperature, and density were prepared from these data, and appear as figures 5 - 20.

1. Cruise Number. The first cruise over the established station pattern (fig. 1) was numbered Gill 1, and subsequent cruises, Gill 2 through Gill 9 (only Gill 8 is covered by the present report).

2. Station Number. Stations are numbered consecutively, starting with one, at the beginning of each cruise. The station pattern and numbers as shown in figure 1 were maintained on each cruise. If a station or series of stations was not occupied, these station numbers are omitted. Regular stations have numbers only; standard and special stations are specifically indicated.

3. Date. Month, day, and year are given.

4. Latitude and Longitude. The position of the station is given in degrees and minutes.

5. Time. Given in Greenwich Mean Time and is that hour nearest to the start of the first cast.

6. Depth. Is the observed uncorrected sonic sounding for the station, recorded in meters.

7. Wind. Wind speed is given in meters per second. Direction from which the wind blows is coded in degrees true to the nearest ten degrees. The last zero is omitted. North is 36 on this scale and calm is 00. See table 1, "Compass Direction Conversion Table for Wind, Sea, and Swell Directions."

8. Barometer. The barometric pressure is coded in millibars, neglecting the 900 or 1000. Thus 996 millibars is coded as 96 and 1008 millibars is coded as 08.

9. Air Temperature. Dry bulb and wet bulb temperatures are entered to the nearest tenth of a degree (centigrade).

10. Humidity. The percent of humidity is coded directly.

11. Weather. Weather is coded as indicated in table 2, "Numerical Weather Codes-Present Weather."

12. Cloud. Cloud type and amount are coded as indicated in table 3, "Cloud Type"; and table 4, "Cloud Amount."

13. Sea. Sea direction and amount are coded as indicated in table 5, "Sea Amount"; and table 1.

14. Swell. Swell directions and amount are coded as indicated in table 6, "Swell Amount"; and table 1.

15. Visibility. Visibility is coded as indicated in table 7, "Visibility."

16. Water Transparency. Given as meters to which a Secchi disc is visible.

Subsurface Observations

1. Sample Depth. Observed (actual) depth of each sample is given in meters. Interpolated values at standard depths are also given. The standard depths in meters are: 0, 10, 20, 30, 50, 75, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800, 1000, 1200, 1500, 2000, 2500, 3000, and thence every 1000 meters.

2. Temperature. The centigrade temperature is given in degrees and hundredths.

3. Salinity. Salinity is given in parts per thousand to two decimal places.

4. Sigma-t. To convert to density divide by 1000 and add 1. Thus, a sigma-t value of 22.35 converts to a density of 1.02235.

5. Dissolved Oxygen. These values are given in milliliters per liter to two decimal places.

6. Total Phosphorus. Values are given in microgram atoms per liter to the nearest 0.1 of a unit.

7. Inorganic Phosphate. Values are given in microgram atoms per liter to the nearest 0.1 of a unit.

8. Nitrate-nitrite. These values are given in microgram atoms per liter to the nearest 0.5 of a unit.

9. Carbohydrates (Arabinose). These values are given in terms of milligrams per liter to the nearest 0.1 of a unit. Collier et al. (1953) presented a technique for estimating certain elements of the organic materials in sea water which react to the test for carbohydrates. The carbohydrate values are given as arabinose equivalents, and are not necessarily the actual concentrations of carbohydrate substances.

10. Proteins (Tyrosine). These values are given to the nearest 0.1 of a unit as milligrams per liter of protein material in sea water, which reacts to the test for tyrosine.

Biological

1. Plankton volumes (Gulf III sampler), table 8. The position given is that at beginning of the tow. The depth of the haul is given from 0 to the greatest depth reached. The volumes as given are "wet volumes" (procedures for determination were given under methods in report for cruise 1). Very few samples contained large organisms such as jellyfish (which were removed), so that the volumes represent smaller organisms.

2. Plankton volumes (Gulf IA High-speed sampler), table 9. The position given is that at the center of the tow. All tows were made at the surface. The volumes as given are "wet volumes" (procedures for determination were given under methods in report for cruise 1). Very few samples contained large organisms such as jellyfish (which were removed), so that the volumes represent smaller organisms.

3. Numbers of plankton organisms per cubic meter of water (Gulf III sampler), table 10. The procedures for plankton tows, methods for sorting and counting, and calculations of numbers of organisms were described under methods in report for cruise 1. Counts are given for major groups as indicated.

4. Numbers of plankton organisms per cubic meter of water (high-speed sampler), table 11. The procedures for plankton tows, methods for sorting and

counting, and calculations of numbers of organisms were described under methods for cruise 3. Counts are given for major groups as indicated.

5. Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), table 12. Description of this sampler, its use, and methods of calculating numbers of organisms were given under methods in report for cruise 1. Counts are given by compartment for major groups as indicated.

6. List of the species of fish in dip-net, trolling, and stomach contents collections (D-dip net; T-trolling; S-stomach contents), table 13. The species are listed in alphabetical order, followed by symbols indicating method of capture.

7. Numbers and species of fish taken by trolling, table 14. The stage of gonad development is based on International Council classifications of gonad maturity for the herring (International Councils Rapports et Proces-Verbaux des Reunions, Vol. LXXIV, pp. 117, March 1931). The scale is only a guide to general classifications and must be treated as such.

This scale follows:

Stage I. Virgin individuals. Very small sexual organs close under vertebral column. Wine-coloured torpedo-shaped ovaries about 2-3 cm. long and 2-3 mm. thick. Eggs invisible to naked eye. Whitish or grayish brown knife-shaped testes 2-3 cm. long and 2-3 mm. broad.

Stage II. Maturing virgins or recovering spents. Ovaries somewhat longer than half the length of ventral cavity, about 1 cm. diameter. Eggs small but visible to naked eye. Milt whitish, somewhat bloodshot, same size as ovaries, but still thin and knife-shaped.

Stage III. Sexual organs more swollen, occupying about half of ventral cavity.

Stage IV. Ovaries and testes nearly filling 2/3 of ventral cavity. Eggs not transparent, milt whitish, swollen.

Stage V. Sexual organs filling ventral cavity. Ovaries with some large transparent eggs. Milt white, not yet running.

Stage VI. Roe and milt running (spawning).

Stage VII. Spents. Ovaries slack with residual eggs. Testes baggy, bloodshot. Doubtful cases are indicated by quoting two stages e.g. "St. I-II, St. VII-II," etc.

8. Numbers and species of fish taken by dip net, table 15. There is shown, by family, the genera and species taken. Numbers of specimens from each station are given in parentheses, followed by the approximate size or size range of standard length, in millimeters.

ACKNOWLEDGMENTS

Acknowledgment is made to the following agencies and individuals for contributions in securing and processing the material presented. To the Navy Hydrographic Office for their cooperation in planning and executing the field program and for processing the physical oceanographic data. To the Office of Naval Research, and Dr. Sidney R. Galler in particular, for help in planning and executing the field program. To the Georgia Game and Fish Commission for their cooperation in the biological studies; through Frank T. Knapp, biologist. To Dean F. Bumpus of the Woods Hole Oceanographic Institution for preparation of the salinity, temperature, and density profiles which appear as figures 5 - 20.

From our own staff special recognition is due: Frederick H. Berry for identification of dip-net and stomach content material; Hugh M. Fields, Donald Moore, Louis E. Vogele, and Melba C. Wilson for the plankton organism identifications and counts; Edward Cohen (formerly chemist) for chemical

determinations; and Joseph E. Moore for assistance in assembling the physical and chemical data. We also appreciate the assistance of other members of the staff who aided in one way or another; Charles P. Goodwin, Herbert R. Gordy, Jayne E. Buchanan, Mabel Jo Gay, Mary E. Cobb, and E. Reid Poe. Acknowledgment is made of the excellent cooperation of crew members of the M/V Theodore N. Gill and Captain Mauritz C. Fredricksen in particular.

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1953. Effect of dissolved organic substances on oysters. Fish. Bull. Fish and Wildlife Service, 54(84): 167-185, 14 figs.

Table 1.--Compass direction conversion table for wind, sea, and swell directions

Code	Direction
00	Calm
01	5° to 14°
02	15° to 24° NNE
03	25° to 34°
04	35° to 44°
05	45° to 54° NE
06	55° to 64°
07	65° to 74° ENE
08	75° to 84°
09	85° to 94° E
10	95° to 104°
11	105° to 114° ESE
12	115° to 124°
13	125° to 134°
14	135° to 144° SE
15	145° to 154°
16	155° to 164° SSE
17	165° to 174°
18	175° to 184° S
19	185° to 194°
20	195° to 204° SSW
21	205° to 214°
22	215° to 224°
23	225° to 234° SW
24	235° to 244°
25	245° to 254° WSW
26	255° to 264°
27	265° to 274° W
28	275° to 284°
29	285° to 294° WNW
30	295° to 304°
31	305° to 314°
32	315° to 324° NW
33	325° to 334°
34	335° to 344° NNW
35	345° to 354°
36	355° to 4° N

00 Cloud development NOT observed or NOT observable during past hour.	01 Clouds generally dissolving or becoming less developed during past hour.	02 State of sky on the whole unchanged during past hour.	03 Clouds generally forming or developing during past hour.	04 Visibility reduced by smoke.	05 Haze.	06 Widespread dust in suspension in the air, NOT raised by wind, at time of observation.	07 Dust or sand raised by wind, at time of observation.	08 Well developed dust devil(s) within past hour.	09 Duststorm or sandstorm within sight of or at station during past hour.
10 Light fog.	11 Patches of shallow fog at station, NOT deeper than 6 feet on land.	12 More or less continuous shallow fog at station, NOT deeper than 6 feet on land.	13 Lightning visible, no thunder heard.	14 Precipitation within sight, but NOT reaching the ground.	15 Precipitation within sight, reaching the ground, but distant from station.	16 Precipitation within sight, reaching the ground, near to but NOT at station.	17 Thunder heard, but no precipitation at the station.	18 Squall(s) within sight during past hour.	19 Funnel cloud(s) within sight during past hour.
20 Drizzle (NOT freezing and NOT falling as showers) during past hour, but NOT at time of ob.	21 Rain (NOT freezing and NOT falling as showers) during past hour, but NOT at time of ob.	22 Snow (NOT falling as showers) during past hour, but NOT at time of observation.	23 Rain and snow (NOT falling as showers) during past hour, but NOT at time of observation.	24 Freezing drizzle or freezing rain (NOT falling as showers) during past hour, but NOT at time of observation.	25 Showers of rain during past hour, but NOT at time of observation.	26 Showers of snow, or of rain and snow, during past hour, but NOT at time of observation.	27 Showers of hail, or of hail and rain, during past hour, but NOT at time of observation.	28 Fog during past hour, but NOT at time of observation.	29 Thunderstorm (with or without precipitation) during past hour, but NOT at time of observation.
30 Slight or moderate duststorm or sandstorm has decreased during past hour.	31 Slight or moderate duststorm or sandstorm no appreciable change during past hour.	32 Slight or moderate duststorm or sandstorm has increased during past hour.	33 Severe duststorm or sandstorm, has decreased during past hour.	34 Severe duststorm or sandstorm, no appreciable change during past hour.	35 Severe duststorm or sandstorm, has increased during past hour.	36 Slight or moderate drifting snow, generally low.	37 Heavy drifting snow, generally low.	38 Slight or moderate drifting snow, generally high.	39 Heavy drifting snow, generally high
40 Fog at distance at time of observation, but NOT at station during past hour.	41 Fog in patches.	42 Fog, sky discernible, has become thinner during past hour.	43 Fog, sky NOT discernible, has become thinner during past hour.	44 Fog, sky discernible, no appreciable change during past hour.	45 Fog, sky NOT discernible no appreciable change during past hour.	46 Fog, sky discernible, has begun or become thicker during past hour.	47 Fog, sky NOT discernible, has begun or become thicker during past hour.	48 Fog, depositing rime, sky discernible.	49 Fog, depositing rime, sky not discernible.
50 Intermittent drizzle (NOT freezing) slight at time of observation.	51 Continuous drizzle (NOT freezing) slight at time of observation.	52 Intermittent drizzle (NOT freezing) moderate at time of ob.	53 Continuous drizzle (NOT freezing), moderate at time of ob.	54 Intermittent drizzle (NOT freezing), thick at time of observation.	55 Continuous drizzle (NOT freezing), thick at time of observation.	56 Slight freezing drizzle.	57 Moderate or thick freezing drizzle.	58 Drizzle and rain, slight.	59 Drizzle and rain, moderate or heavy.
60 Intermittent rain (NOT freezing), slight at time of observation.	61 Continuous rain (NOT freezing), slight at time of observation.	62 Intermittent rain (NOT freezing), moderate at time of ob.	63 Continuous rain (NOT freezing), moderate at time of observation.	64 Intermittent rain (NOT freezing), heavy at time of observation.	65 Continuous rain (NOT freezing), heavy at time of observation.	66 Slight freezing rain.	67 Moderate or heavy freezing rain.	68 Rain or drizzle and snow, slight.	69 Rain or drizzle and snow, moderate or heavy.
70 Intermittent fall of snowflakes, slight at time of observation.	71 Continuous fall of snowflakes, slight at time of observation.	72 Intermittent fall of snowflakes, moderate at time of observation.	73 Continuous fall of snowflakes, moderate at time of observation.	74 Intermittent fall of snowflakes, heavy at time of observation.	75 Continuous fall of snowflakes, heavy at time of observation.	76 Ice needles (with or without fog).	77 Granular snow (with or without fog).	78 Isolated starlike snow crystals (with or without fog).	79 Ice pellets (sleet, U. S. definition).
80 Slight rain shower(s).	81 Moderate or heavy rain shower(s).	82 Violent rain shower(s).	83 Slight shower(s) of rain and snow mixed.	84 Moderate or heavy shower(s) of rain and snow mixed.	85 Slight snow shower(s).	86 Moderate or heavy snow shower(s).	87 Slight shower(s) of soft or small hail with or without rain or rain and snow mixed.	88 Moderate or heavy shower(s) of soft or small hail with or without rain or rain and snow mixed.	89 Slight shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder.
90 Moderate or heavy shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder.	91 Slight rain at time of ob.; thunderstorm during past hour, but NOT at time of observation.	92 Moderate or heavy rain at time of ob.; thunderstorm during past hour, but NOT at time of observation.	93 Slight snow or rain and snow mixed or hail at time of observation.; thunderstorm during past hour, but not at time of observations.	94 Mod. or heavy snow, or rain and snow mixed or hail at time of ob.; thunderstorm during past hour, but NOT at time of observation.	95 Slight or mod. thunderstorm without hail, but with rain and/or snow at time of observation.	96 Slight or moderate thunderstorm, with hail at time of observation.	97 Heavy thunderstorm, without hail, but with rain and/or snow at time of observation.	98 Thunderstorm combined with duststorm or sandstorm at time of observation.	99 Heavy thunderstorm with hail at time of observation.

Table 2.--Numerical weather codes--present weather

Table 3.--Cloud type

Code	
0	Stratus or Fractostratus
1	Cirrus
2	Cirrostratus
3	Cirrocumulus
4	Altocumulus
5	Altostratus
6	Stratuscumulus
7	Nimbostratus
8	Cumulus or Fractocumulus
9	Cumulonumbus

Table 4.--Cloud amount

Code	
0	No clouds
1	Less than 1/10 or 1/10
2	2/10 and 3/10
3	4/10
4	5/10
5	6/10
6	7/10 and 8/10
7	9/10 and 9/10 plus
8	10/10
9	Sky obscured

Table 5.--Sea amount

Code	Approximate Height (feet)	Description
0	------	Calm
1	Less than 1	Smooth
2	1 to 3	Slight
3	3 to 5	Moderate
4	5 to 8	Rough
5	8 to 12	Very rough
6	12 to 20	High
7	20 to 40	Very high
8	40 and over	Mountainous
9	------	Very rough confused sea

Table 6.--Swell amount

Code	Approximate Height (feet)	Description		Approximate Length (feet)
0	----	No swell		----
1	1 to 6	Low swell	Short or Average	0 to 600
2			Long	Above 600
3	6 to 12	Moderate	Short	0 to 300
4			Average	300 to 600
5			Long	Above 600
6	Greater than 12	High	Short	0 to 300
7			Average	300 to 600
8			Long	Above 600
9	----	Confused		----

Table 7. Visibility

Code

0 Dense fog ---------- 50 yards
1 Thick fog ---------- 200 yards
2 Fog ---------- 400 yards
3 Moderate fog ---------- 1000 yards
4 Thin fog or mist ---------- 1 mile
5 Visibility poor ---------- 2 miles
6 Visibility moderate ---------- 5 miles
7 Visibility good ---------- 10 miles
8 Visibility very good ---------- 30 miles
9 Visibility excellent ----------Over 30 miles

Table 8.--Plankton volumes (Gulf III sampler)

Sta.	Position N. Lat.	Position W. Long.	(1954) Date	Time (EST) Start	Time (EST) End	Vol. water strained (m^3)	Depth of haul in meters	Vol. per m^3 strained (ml)
1	27°00'	79°18'	Sept. 11	0450	0522	236.5	0-69	0.127
2	26°58'	79°42'	Sept. 11	0817	0848	277.5	0-60	0.072
3	27°00'	80°03'	Sept. 11	1128	1148	92.1	0-7	0.326
4	27°20'	80°03'	Sept. 11	1415	1436	130.3	0-13	0.998
5	27°40'	80°04'	Sept. 11	1649	1710	250.3	0-11	0.180
6	27°41'	79°40'	Sept. 11	2042	2113	256.4	0-69	0.078
7	27°40'	79°18'	Sept. 12	0009	0041	162.2	0-60	0.123
8	28°18'	79°28'	Sept. 12	0835	0907	228.1	0-73	-
9	28°20'	79°48'	Sept. 12	1133	1204	248.1	0-69	0.081
10	28°20'	80°09'	Sept. 12	1417	1438	141.6	0-12	0.318
11	28°20'	80°33'	Sept. 12	1710	1732	148.5	0-5	0.101
12	28°41'	80°25'	Sept. 12	2016	2038	106.7	0-10	0.422
13	29°00'	80°32'	Sept. 12	2242	2304	132.4	0-9	0.340
14	29°00'	80°10'	Sept. 13	0105	0128	159.0	0-22	0.252
15	28°59'	79°48'	Sept. 13	0455	0527	201.0	0-77	0.124
16	29°00'	79°26'	Sept. 13	0820	0851	291.9	0-69	0.068
17	29°38'	79°37'	Sept. 13	1327	1358	265.9	0-65	0.056
18	29°40'	80°00'	Sept. 13	1652	1723	228.2	0-60	0.131
19	29°40'	80°23'	Sept. 13	1937	1958	168.9	0-13	0.414
20	29°40'	80°45'	Sept. 13	2211	2232	116.9	0-7	0.385
21	29°40'	81°08'	Sept. 14	0049	0110	103.2	0-9	1.066
22	30°00'	81°14'	Sept. 14	0338	0400	101.6	0-5	0.443
23	30°20'	81°20'	Sept. 14	0616	0638	151.5	0-5	0.297
24	30°20'	80°58'	Sept. 14	0847	0908	146.5	0-8	0.239
25	30°20'	80°35'	Sept. 14	1126	1147	129.6	0-14	0.270
26	30°18'	80°12'	Sept. 14	1407	1438	180.5	0-82	0.249
27	30°20'	79°50'	Sept. 14	1718	1749	245.2	0-73	0.102
28	30°20'	79°27'	Sept. 14	2011	2043	289.8	0-69	0.069
29	30°59'	79°14'	Sept. 15	0052	0123	239.0	0-60	0.167
30	31°00'	79°36'	Sept. 15	0411	0443	275.3	0-60	0.182
31	31°00'	80°00'	Sept. 15	0715	0741	204.2	0-18	0.294
32	31°00'	80°23'	Sept. 15	0949	1011	139.8	0-16	0.322
33	31°00'	80°46'	Sept. 15	1229	1251	145.5	0-12	0.275
34	31°00'	81°09'	Sept. 15	1512	1532	122.7	Surface	0.244
35	31°20'	80°53'	Sept. 20	1925	1948	99.4	0-5	0.453
36	31°42'	80°36'	Sept. 20	2235	2257	141.0	0-5	0.177
37	31°40'	80°20'	Sept. 21	1311	1333	94.9	0-13	0.527
38	31°36'	79°51'	Sept. 21	1629	1652	46.9	0-24	1.066
39	31°33'	79°27'	Sept. 21	2006	2038	61.1	0-86	0.818
43	32°18'	79°21'	Sept. 22	0649	0710	104.2	0-20	0.288
44	32°34'	79°35'	Sept. 22	0944	1005	234.8	Surface	0.298
45	32°40'	79°33'	Sept. 25	1051	1102	126.2	Surface	0.594

Table 8.--Plankton volumes (Gulf III sampler), cont'd

Sta.	Position N. Lat.	W. Long	(1954) Date	Time (EST) Start	End	Vol. water strained (m^3)	Depth of haul in meters	Vol. per m^3 strained (ml)
46	32°54'	79°16'	Sept. 25	1330	1350	170.3	Surface	0.294
47	32°40'	79°00'	Sept. 25	1627	1648	184.0	0-13	0.326
48	32°24'	78°45'	Sept. 25	1935	2007	254.2	0-69	0.197
49	32°12'	78°26'	Sept. 25	2250	2323	257.7	0-69	0.097
50	31°56'	78°10'	Sept. 26	0232	0305	299.9	0-60	0.100
51	32°19'	77°33'	Sept. 26	0641	0713	289.4	0-60	0.121
52	32°34'	77°48'	Sept. 26	1045	1117	215.9	0-60	0.255
53	32°49'	78°04'	Sept. 26	1355	1428	247.8	0-60	0.182
54	33°03'	78°21'	Sept. 26	1630	1651	111.4	0-15	0.494
55	33°17'	78°38'	Sept. 26	1857	1919	126.3	0-8	0.356
56	33°32'	78°55'	Sept. 26	2133	2153	152.9	Surface	0.327
57	33°34'	78°25'	Sept. 27	0036	0100	231.6	0-5	0.216
58	33°36'	77°55'	Sept. 27	0339	0401	156.3	0-5	0.256
59	33°22'	77°37'	Sept. 27	0625	0646	186.3	0-9	0.349
60	33°08'	77°20'	Sept. 27	0925	0956	248.1	0-65	0.141
61	32°52'	77°06'	Sept. 27	1255	1332	227.1	0-71	0.242
62	32°40'	76°46'	Sept. 27	1804	1836	289.1	0-60	0.104
63	33°14'	76°25'	Sept. 27	2227	2302	307.2	0-69	0.114
64	33°29'	76°38'	Sept. 28	0124	0155	262.3	0-60	-
65	33°44'	76°56'	Sept. 28	0421	0444	145.1	0-18	0.379
66	33°57'	77°11'	Sept. 28	0651	0713	210.9	0-8	0.237
67	34°10'	77°30'	Sept. 28	0934	0956	166.1	0-5	0.060
68	34°22'	77°09'	Sept. 28	1209	1231	181.8	0-5	0.082
69	34°32'	76°49'	Sept. 28	1439	1501	177.6	0-5	0.169
70	34°18'	76°32'	Sept. 28	1726	1748	166.2	0-13	0.301
71	34°02'	76°16'	Sept. 28	2026	2058	199.3	0-65	0.301
72	33°52'	75°58'	Sept. 28	2321	2353	296.7	0-60	0.135
73	34°09'	75°24'	Sept. 29	0424	0456	282.9	0-60	0.106
74	34°22'	75°38'	Sept. 30	0131	0202	177.4	0-65	0.366
75	34°40'	75°53'	Sept. 29	2125	2147	128.4	0-13	0.272
77	35°01'	75°45'	Sept. 29	1838	1901	156.3	0-10	0.512
78	35°08'	75°22'	Sept. 29	1602	1623	160.0	0-9	0.375
79	34°54'	75°04'	Sept. 29	1258	1330	223.4	0-65	0.358
80	34°34'	74°55'	Sept. 29	0940	1011	298.8	0-56	0.067
Spc. 9	28°00'	79°00'	Sept. 12	0405	0437	206.0	0-69	0.073

Table 9.--Plankton volumes (Gulf IA High-speed sampler)

Tow No.	Position of ship at center of tow: N. Lat.	W. Long.	(1954) Date	Time (EST) Start	End	Vol. water strained (m^3)	Vol. per m^3 strained (ml)
1	26°59'	79°29'	Sept. 11	0525	0700	19.8	0.050
2	27°02'	79°52'	Sept. 11	0853	1020	18.8	0.053
3	27°11'	80°03'	Sept. 11	1153	1330	17.9	0.838
4	27°29'	80°03'	Sept. 11	1440	1600	14.4	0.243
5	27°40'	79°54'	Sept. 11	1715	1855	16.9	0.178
6	27°44'	79°30'	Sept. 11	2115	2250	19.1	0.026
7	27°50'	79°11'	Sept. 12	0045	0225	19.3	0.016
8	28°07'	79°13'	Sept. 12	0440	0620	20.4	0.093
9	28°20'	79°38'	Sept. 12	0910	1020	12.2	0.016
10	28°23'	79°58'	Sept. 12	1210	1330	18.1	0.055
11	28°21'	80°20'	Sept. 12	1440	1630	22.4	0.045
12	28°30'	80°24'	Sept. 12	1734	1935	25.0	0.200
13	28°51'	80°28'	Sept. 12	2045	2205	18.1	0.182
14	29°00'	80°21'	Sept. 12-13	2309	0010	12.4	0.242
15	29°02'	79°38'	Sept. 13	0530	0700	17.1	0.029
16	29°19'	79°32'	Sept. 13	0855	1155	39.3	0.013
17	29°40'	79°47'	Sept. 13	1359	1515	17.4	0.029
18	29°43'	80°11'	Sept. 13	1725	1840	15.5	0.194
19	29°41'	80°34'	Sept. 13	2000	2120	15.7	0.382
20	29°39'	80°54'	Sept. 13	2235	2400	16.2	0.463
21	30°09'	81°16'	Sept. 14	0402	0530	17.1	0.322
22	30°21'	81°11'	Sept. 14	0640	0805	14.6	0.479
23	30°20'	80°49'	Sept. 14	0910	1040	16.7	0.299
24	30°18'	80°25'	Sept. 14	1150	1310	16.9	0.178
25	30°18'	80°01'	Sept. 14	1440	1600	16.2	0.185
26	30°21'	79°37'	Sept. 14	1754	1910	14.4	0.035
27	31°01'	79°25'	Sept. 15	0126	0250	19.1	0.026
28	31°02'	79°47'	Sept. 15	0445	0630	16.9	2.663
29	31°29'	80°46'	Sept. 20	1951	2130	18.8	0.266
30	31°42'	80°33'	Sept. 20	2300	2330	5.1	0.196
31	32°46'	79°25'	Sept. 25	1115	1235	19.5	0.256
32	32°48'	79°10'	Sept. 25	1350	1540	20.9	0.239
34	32°15'	78°32'	Sept. 25	2010	2133	13.9	0.144
35	32°07'	77°50'	Sept. 26	0308	0520	27.2	0.037
36	32°26'	77°36'	Sept. 26	0715	0850	19.7	0.051
37	32°40'	77°53'	Sept. 26	1119	1254	18.5	0.108
38	32°55'	78°12'	Sept. 26	1427	1550	15.9	0.314
39	33°09'	78°28'	Sept. 26	1655	1813	15.0	0.020
40	33°24'	78°45'	Sept. 26	1925	2048	17.5	0.743
41	33°33'	78°41'	Sept. 26	2155	2350	22.1	0.271
42	33°35'	78°09'	Sept. 27	0103	0305	25.1	0.120
43	33°16'	77°29'	Sept. 27	0650	0805	14.9	0.537
44	33°01'	77°13'	Sept. 27	1000	1130	18.8	0.053

Table 9.--Plankton volumes (Gulf IA High-speed sampler), cont'd

Tow No.	Position of ship at center of tow: N. Lat.	W. Long.	(1954) Date	Time (EST) Start	End	Vol. water strained (m^3)	Vol. per m^3 strained (ml)
45	32°49'	76°55'	Sept. 27	1335	1600	30.3	0.066
46	32°59'	76°36'	Sept. 27	1839	2055	28.7	0.139
47	33°23'	76°30'	Sept. 27-28	2305	0010	13.7	0.073
48	33°38'	76°43'	Sept. 28	0200	0335	20.3	0.098
49	33°50'	77°04'	Sept. 28	0447	0605	19.1	0.157
50	34°03'	77°20'	Sept. 28	0715	0822	16.3	0.429

Table 10.--Numbers of plankton organisms per cubic meter of water (Gulf III sampler)

Station Number	Reg. 1	Reg. 2	Reg. 3	Reg. 4	Reg. 5	Reg. 6	Reg. 7	Reg. 9
Protozoa	95.9	115.4	338.4	403.5	159.2	244.7	158.2	360.6
Coelenterata	7.6	9.3	1.5	33.0	9.8	7.3	14.3	9.5
Chaetognatha	6.8	5.6	131.2	55.3	20.7	6.0	7.0	6.0
Misc. Worms	0.8	0.5	55.2	0.3	1.0	0.6	0.7	0.4
Copepoda	105.8	76.4	347.6	340.0	138.9	65.3	167.3	89.7
Ostracoda	2.4	1.9	0.2	-	-	4.0	7.6	3.5
Mysidacea	-	-	-	-	0.3	-	-	-
Amphipoda	0.8	0.4	-	8.1	1.0	0.4	0.4	0.2
Isopoda	0.1	-	-	-	-	-	0.1	-
Stomatopoda	0.2	0.1	1.5	2.4	0.6	-	0.1	0.2
Euphausiacea	3.6	3.2	-	-	1.4	8.4	11.0	3.5
Shrimp	0.9	0.7	26.3	244.0	4.1	0.8	2.5	0.9
Crabs	0.3	0.4	54.7	200.1	4.3	0.8	0.9	0.4
Misc. Crustaceans	0.2	0.4	124.3	265.2	0.4	0.1	0.2	-
Pteropoda	0.2	-	5.2	260.3	0.6	0.2	0.7	0.1
Misc. Mollusca	2.7	1.2	23.0	39.0	3.6	2.0	3.7	1.1
Larvacea	69.0	37.4	133.5	3.5	59.3	38.0	103.2	58.1
Misc. Tunicata	1.1	1.2	-	5.2	0.2	0.8	3.1	0.9
Leptocardia	0.02	<0.01	27.85	3.54	<0.01	0.01	0.05	<0.01
Misc. Organisms	4.9	4.0	354.5*	9.5	5.0	4.4	4.6	3.5
Subtotal	303.3	258.1	1625.0	1872.9	410.4	383.8	485.6	538.6
Fish Eggs	1.93	0.01	1.93	1.65	1.95	<0.01	0.14	0.02
Fish Larvae	1.96	0.86	4.58	5.26	0.99	0.91	2.87	0.73
Total	307.2	259.0	1631.5	1879.8	413.3	384.7	488.6	539.4

* Mostly echinoderms

Table 10.--Numbers of plankton organisms per cubic meter of water (Gulf III sampler), cont'd

Station Number	Reg. 10	Reg. 11	Reg. 12	Reg. 13	Reg. 14	Reg. 15	Reg. 16	Reg. 17
Protozoa	1497.2	224.1	546.4	108.9	633.3	464.1	443.8	158.7
Coelenterata	4.7	0.8	13.7	6.2	4.4	5.2	5.1	4.4
Chaetognatha	27.8	27.2	20.0	48.0	13.7	4.1	7.6	11.8
Misc. Worms	1.8	0.1	0.7	0.2	0.9	0.5	0.3	0.2
Copepoda	408.7	14.8	468.9	483.6	296.0	81.2	86.4	88.5
Ostracoda	14.7	-	16.3	0.8	2.1	3.3	4.5	2.6
Mysidacea	0.1	-	1.1	19.8	0.1	-	-	-
Amphipoda	1.8	-	3.0	1.7	1.6	0.6	0.3	0.1
Isopoda	-	-	-	-	-	-	-	-
Stomatopoda	2.0	0.8	0.7	1.4	0.5	-	-	-
Euphausiacea	1.1	-	1.9	0.2	2.5	5.3	3.4	5.6
Shrimp	6.5	82.8	65.0	291.4	8.8	0.9	0.7	0.5
Crabs	7.5	37.1	39.2	97.7	7.5	0.3	0.3	-
Misc. Crustaceans	2.5	5.8	79.5	44.8	33.3	0.6	0.8	0.4
Pteropoda	2.5	0.7	67.6	0.4	2.1	0.4	0.3	0.5
Misc. Mollusca	11.4	107.1	14.4	7.1	5.5	2.6	2.9	3.7
Larvacea	116.8	1.1	119.2	5.7	84.0	42.1	22.2	23.9
Misc. Tunicata	4.0	-	5.8	0.6	2.8	0.9	0.1	0.1
Leptocardia	-	-	0.03	0.05	-	0.02	0.01	<0.01
Misc. Organisms	110.8	969.3	337.8	140.9	65.3	1.4	1.9	1.3
Subtotal	2221.9	1471.7	1801.2	1259.4	1164.4	613.5	580.6	302.3
Fish Eggs	28.89	0.02	0.98	50.53	0.46	0.01	0.01	0.02
Fish Larvae	2.11	1.84	11.40	2.12	5.65	0.75	0.71	0.92
Total	2252.9	1473.6	1813.6	1312.0	1170.5	614.3	581.3	303.2

Table 10.--Numbers of plankton organisms per cubic meter of water (Gulf III sampler), cont'd

Station Number	Reg. 18	Reg. 19	Reg. 20	Reg. 21	Reg. 22	Reg. 23	Reg. 24	Reg. 25
Protozoa	752.5	897.5	828.8	47.2	154.4	61.6	49.2	745.9
Coelenterata	13.8	11.8	14.9	3.1	4.1	0.3	4.0	5.7
Chaetognatha	10.1	35.1	43.5	90.4	66.8	56.0	62.2	65.4
Misc. Worms	2.1	1.6	2.4	-	2.4	0.8	1.0	1.4
Copepoda	161.6	744.3	564.0	589.6	588.4	271.5	102.7	193.0
Ostracoda	1.2	135.6	13.8	0.4	-	-	0.1	7.6
Mysidacea	0.1	26.4	7.7	0.2	0.6	0.1	-	-
Amphipoda	0.9	23.0	7.9	-	-	-	2.2	1.5
Isopoda	-	-	-	-	-	0.1	-	-
Stomatopoda	-	2.0	1.0	1.9	0.6	-	0.8	3.1
Euphausiacea	5.8	0.1	-	-	-	-	-	-
Shrimp	1.7	12.9	99.7	341.0	348.5	77.0	52.1	96.5
Crabs	0.6	64.0	83.4	69.8	64.7	14.2	121.6	65.4
Misc. Crustaceans	0.5	2.2	368.1	39.0	58.4	2.1	59.3	296.1
Pteropoda	0.8	4.3	11.3	232.1	10.0	-	0.3	10.5
Misc. Mollusca	4.3	2.4	9.6	84.2	2.2	2.1	26.9	9.1
Larvacea	163.5	64.0	223.1	84.2	116.8	65.8	55.0	108.0
Misc. Tunicata	1.2	3.1	2.6	-	-	0.1	9.6	0.3
Leptocardia	0.01	0.27	7.84	0.23	0.11	-	0.16	0.76
Misc. Organisms	1.8	347.7*	85.2	**	2011.5***	442.2***	85.4	50.7
Subtotal	1122.5	2378.3*	2374.8	1583.3**	3429.5	993.9	632.6	1661.0
Fish Eggs	<0.01	2.59	4.49	0.65	0.53	0.05	5.22	5.90
Fish Larvae	0.79	5.16	11.80	2.96	0.83	0.34	6.43	14.11
Total	1123.3	2386.0*	2391.1	1586.9**	3430.9	994.3	644.2	1681.0

* Questionable count
** Mostly echinoderms, accurate count could not be made because of phytoplankton
*** Mostly echinoderms

Table 10.--Numbers of plankton organisms per cubic meter of water (Gulf III sampler), cont'd

Station Number	Reg. 26	Reg. 27	Reg. 28	Reg. 29	Reg. 30	Reg. 31	Reg. 32	Reg. 33
Protozoa	1141.6	463.4	362.8	802.8	842.4	1191.8	1819.7	357.0
Coelenterata	5.1	11.7	8.0	13.0	14.8	28.0	22.7	3.4
Chaetognatha	32.9	6.8	9.9	11.4	23.1	31.1	22.6	81.6
Misc. Worms	1.3	1.5	0.8	1.4	3.3	1.9	0.1	0.3
Copepoda	569.6	130.6	119.2	217.3	205.6	395.6	186.5	183.6
Ostracoda	180.9	2.4	6.7	5.0	6.0	1.1	5.0	58.3
Mysidacea	0.1	0.1	0.1	-	0.3	0.1	-	-
Amphipoda	7.5	1.1	0.3	0.8	1.2	1.8	2.0	36.4
Isopoda	-	0.1	-	-	-	0.2	0.3	-
Stomatopoda	1.8	0.2	0.1	0.1	-	0.9	2.7	2.3
Euphausiacea	0.4	5.1	7.4	14.8	9.1	1.1	-	-
Shrimp	55.2	1.7	0.8	1.3	1.0	51.9	6.9	196.7
Crabs	24.7	0.5	0.4	0.4	0.7	29.1	13.6	72.8
Misc. Crustaceans	1.0	0.7	0.8	0.4	0.5	26.0	1.6	0.3
Pteropoda	4.9	1.2	0.8	1.0	1.7	3.0	3.1	0.4
Misc. Mollusca	3.8	3.3	8.2	5.3	4.7	4.7	13.2	4.9
Larvacea	142.1	91.6	75.3	97.6	123.2	58.1	124.3	109.3
Misc. Tunicata	3.1	2.4	0.6	1.2	1.2	29.1	10.3	233.1
Leptocardia	0.03	0.01	0.07	0.07	0.01	0.03	0.02	0.52
Misc. Organisms	189.1	3.4	4.6	5.7	16.9	88.2	14.3	87.4
Subtotal	2365.1	727.8	606.9	1179.6	1255.7	1493.7	2248.9	1428.3
Fish Eggs	1.17	<0.01	0.02	0.03	<0.01	20.57	2.73	2.66
Fish Larvae	6.25	0.63	1.36	1.13	0.58	3.67	4.51	13.33
Total	2372.5	728.4	608.3	1180.8	1256.3	1967.9	2256.1	1444.3

Table 10.--Numbers of plankton organisms per cubic meter of water (Gulf III sampler), cont'd

Station Number	Reg. 34	Reg. 35	Reg. 36	Reg. 37	Reg. 38	Reg. 39	Reg. 43	Reg. 44
Protozoa	513.2	**	272.1	1246.5	2350.5	1821.6	742.6	****
Coelenterata	12.9	9.2	4.7	4.0	11.5	45.8	9.4	0.3
Chaetognatha	19.9	13.9	6.4	129.6	52.4	77.2	31.1	42.4
Misc. Worms	0.2	-	0.6	1.3	2.1	7.8	-	1.1
Copepoda	174.5	469.2	186.4	359.7	474.6	791.1	213.6	251.9
Ostracoda	0.5	0.6	-	18.5	-	26.2	0.2	-
Mysidacea	-	12.3	11.5	0.8	-	-	-	0.2
Amphipoda	-	8.4	1.8	14.1	4.7	7.5	2.1	-
Isopoda	-	2.2	0.8	-	-	-	-	-
Stomatopoda	3.7	2.2	0.1	0.2	1.7	4.6	1.3	0.1
Euphausiacea	-	-	-	-	0.8	7.8	0.2	-
Shrimp	889.8	177.0	69.2	39.2	6.4	19.3	12.1	46.0
Crabs	82.9	55.4	15.3	43.6	23.9	43.2	11.5	25.3
Misc. Crustaceans	8.3	55.4	6.1	0.4	0.4	128.4	1.2	84.9
Pteropoda	0.5	-	0.1	11.4	23.9	15.4	5.8	0.1
Misc. Mollusca	2.3	27.0	84.2	11.0	16.6	16.4	11.7	3.9
Larvacea	79.5	356.2	218.0	330.6	524.3	510.0	187.2	90.3
Misc. Tunicata	9.9	22.5	0.1	265.8	7.7	30.4	2.3	15.3
Leptocardia	0.06	0.06	0.37	0.23	0.08	0.16	0.02	0.14
Misc. Organisms	328.3*	***	136.8*	248.0	126.6*	170.0	65.1	*****
		**						****
Subtotal	2126.5	1211.6***	1014.6	2724.9	3628.2	3722.9	1297.4	561.9*****
Fish Eggs	0.36	2.80	1.30	2.33	12.00	0.88	6.30	1.29
Fish Larvae	2.00	4.83	1.06	7.56	6.59	11.93	2.35	1.28
		**						****
Total	2128.9	1219.2***	1017.0	2734.8	3646.8	3735.7	1306.0	564.5*****

* Mostly echinoderms
** Mostly ceratia, accurate count could not be made because of phytoplankton
*** Mostly echinoderms, accurate count could not be made because of phytoplankton
**** Numerous radiolaria, numbers not determined
***** Numerous echinoderms, numbers not determined

Table 10.--Numbers of plankton organisms per cubic meter of water (Gulf III sampler), cont'd

Station Number	Reg. 45	Reg. 46	Reg. 47	Reg. 48	Reg. 49	Reg. 50	Reg. 51	Reg. 52
Protozoa	*	*	117.5	347.8	522.4	292.0	631.4	409.5
Coelenterata	1.1	0.5	6.7	10.9	7.3	9.5	7.2	9.6
Chaetognatha	60.5	57.3	64.5	35.9	7.6	5.7	7.3	34.4
Misc. Worms	1.0	3.9	0.5	2.8	0.6	1.1	0.3	1.7
Copepoda	231.8	52.3	140.6	248.5	69.1	81.3	74.0	225.8
Ostracoda	0.6	-	0.3	2.3	2.6	2.3	0.8	29.4
Mysidacea	-	-	-	-	-	-	0.1	-
Amphipoda	0.3	-	8.3	0.7	0.6	0.6	0.6	1.2
Isopoda	-	-	-	-	-	0.1	-	-
Stomatopoda	-	-	1.5	0.3	-	0.1	-	0.5
Euphausiacea	-	-	-	2.1	5.1	10.5	6.0	0.2
Shrimp	3.3	37.3	38.0	4.3	1.2	0.9	1.2	3.9
Crabs	24.6	15.5	3.2	5.6	0.2	0.2	0.4	3.5
Misc. Crustaceans	9.8	1.3	0.2	1.3	-	0.1	0.3	0.4
Pteropoda	-	-	114.1	3.5	0.4	0.4	0.4	1.7
Misc. Mollusca	12.7	0.6	40.3	7.8	2.2	2.4	3.2	5.1
Larvacea	288.9	10.6	65.7	41.7	71.6	51.6	41.0	62.8
Misc. Tunicata	-	-	2.0	4.4	0.5	1.1	0.5	3.9
Leptocardia	-	0.29	0.11	0.40	0.01	0.02	-	0.01
Misc. Organisms	77.3	3.6	55.3	32.5	1.8	3.1	4.0	57.0
Subtotal	711.9*	183.2*	658.8	752.8	693.2	463.0	778.7	850.6
Fish Eggs	1.20	0.14	1.12	0.27	-	<0.01	<0.01	0.02
Fish Larvae	0.48	0.10	1.78	2.43	0.59	1.58	0.26	1.07
Total	713.6*	183.4*	661.7	755.5	693.8	464.6	779.0	851.7

* Numerous radiolaria, numbers not determined

Table 10.--Numbers of plankton organisms per cubic meter of water (Gulf III sampler), cont'd

Station Number	Reg. 53	Reg. 54	Reg. 55	Reg. 56	Reg. 57	Reg. 58	Reg. 59	Reg. 60
Protozoa	400.4	896.3	656.3	*	414.7	413.7	503.0	414.4
Coelenterata	5.1	2.3	4.9	-	5.5	0.4	8.3	5.6
Chaetognatha	26.5	24.0	70.5	48.5	57.7	1.5	28.8	17.2
Misc. Worms	2.2	0.2	0.6	3.5	0.2	0.1	2.4	0.6
Copepoda	159.1	224.6	365.9	149.7	270.9	264.5	125.2	102.5
Ostracoda	10.7	2.2	9.8	-	5.4	0.1	84.2	8.3
Mysidacea	-	-	9.2	5.5	15.0	5.8	-	-
Amphipoda	2.3	1.8	38.8	1.4	2.7	0.4	1.7	1.1
Isopoda	-	-	0.3	-	0.2	-	0.1	-
Stomatopoda	0.1	0.4	0.2	-	0.7	0.5	1.2	0.1
Euphausiacea	0.6	-	-	-	-	-	1.6	0.4
Shrimp	5.4	85.6	157.8	58.2	96.1	61.0	6.3	2.3
Crabs	3.6	8.6	20.0	45.8	25.6	7.8	13.2	3.1
Misc. Crustaceans	0.6	0.2	107.4	0.1	14.6	1.3	1.5	2.3
Pteropoda	3.6	416.8	0.2	0.5	1.7	0.1	3.3	0.9
Misc. Mollusca	5.7	95.2	5.4	28.2	42.1	1.3	26.6	2.8
Larvacea	46.2	112.3	102.4	2.7	4.9	55.6	0.8	18.5
Misc. Tunicata	1.5	0.5	14.9	-	23.8	0.2	0.6	3.8
Leptocardia	0.04	-	2.02	2.32	0.38	0.02	0.02	0.15
Misc. Organisms	27.4	89.4	156.1	808.3	42.1	3.6	161.6	10.2
Subtotal	701.0	1960.4	1722.7	1154.7	1024.3	817.9	970.4	594.2
Fish Eggs	0.12	1.15	1.35	0.26	1.66	0.22	3.76	0.05
Fish Larvae	1.72	1.14	3.21	0.68	3.48	0.75	3.08	1.07
Total	702.8	1962.7	1727.3	1155.6	1029.4	818.9	977.2	595.3

* Mostly radiolaria, accurate count could not be made because of phytoplankton

Table 10.--Numbers of plankton organisms per cubic meter of water (Gulf III sampler), cont'd

Station Number	Reg. 61	Reg. 62	Reg. 63	Reg. 65	Reg. 66	Reg. 67	Reg. 68	Reg. 69
Protozoa	708.5	429.7	242.2	1125.0*	723.8	337.0	474.6	864.2
Coelenterata	12.2	10.2	7.7	10.6	1.2	3.5	2.5	17.3
Chaetognatha	33.4	8.0	8.1	37.4	63.3	22.6	18.4	7.0
Misc. Worms	1.6	2.3	0.4	0.8	0.4	0.8	0.1	0.1
Copepoda	276.3	75.5	101.4	623.9	90.5	17.6	85.1	31.2
Ostracoda	16.6	1.7	2.9	51.1	23.3	0.1	0.2	-
Mysidacea	0.3	0.1	-	4.4	-	-	-	-
Amphipoda	3.8	0.8	0.3	24.9	1.2	0.2	0.7	0.4
Isopoda	0.1	-	-	-	0.1	-	-	-
Stomatopoda	0.3	0.2	0.1	0.3	0.3	-	-	-
Euphausiacea	0.4	3.3	5.4	2.5	-	-	-	-
Shrimp	9.3	0.9	1.2	5.2	12.9	5.2	1.0	2.1
Crabs	4.2	0.3	0.3	1.5	8.3	9.0	1.4	4.4
Misc. Crustaceans	3.2	-	0.1	0.1	0.2	-	0.1	0.2
Pteropoda	2.8	0.2	-	4.7	0.4	0.2	0.4	84.8
Misc. Mollusca	3.5	1.7	2.5	32.1	19.5	1.9	6.6	24.3
Larvacea	37.3	41.1	33.8	90.6	45.2	62.5	26.8	54.9
Misc. Tunicata	9.1	0.3	2.0	3.8	0.1	0.1	-	0.1
Leptocardia	0.49	0.01	0.01	0.05	0.05	-	-	<0.01
Misc. Organisms	10.4	2.3	2.0	59.9	33.2	5.8	7.8	70.4
Subtotal	1133.8	578.6	410.4	2078.8*	1024.0	466.5	625.7	1161.4
Fish Eggs	0.07	-	<0.01	4.70	1.64	1.41	2.10	0.22
Fish Larvae	3.29	1.17	1.35	4.12	1.08	0.23	0.24	0.15
Total	1137.2	579.8	411.8	2087.6*	1026.7	468.1	628.0	1161.8

* Questionable count

Table 10.--Numbers of plankton organisms per cubic meter of water (Gulf III sampler), cont'd

Station Number	Reg. 70	Reg. 71	Reg. 72	Reg. 73	Reg. 74	Reg. 75	Reg. 77	Reg. 78
Protozoa	239.8	1155.2	390.1	308.0	1294.2	1101.3	96.3	360.4
Coelenterata	4.6	9.5	12.1	11.4	12.0	6.4	3.4	2.5
Chaetognatha	75.2	46.8	7.7	20.2	47.8	26.0	15.9	58.3
Misc. Worms	-	1.4	1.5	1.2	1.4	-	0.2	0.8
Copepoda	74.0	335.1	111.5	113.2	406.3	191.5	165.5	279.6
Ostracoda	566.4	28.7	1.6	1.1	16.3	123.8	552.0	13.1
Mysidacea	-	0.1	-	-	-	6.1	2.2	-
Amphipoda	-	2.7	0.3	1.0	4.7	6.5	19.3	7.6
Isopoda	0.1	-	-	-	-	-	-	-
Stomatopoda	0.1	0.3	-	0.1	1.2	0.5	0.5	0.6
Euphausiacea	-	3.1	6.0	6.7	5.0	1.2	-	0.1
Shrimp	49.7	3.4	2.2	1.1	1.2	13.7	74.6	41.1
Crabs	1.9	3.0	0.3	0.3	5.1	6.1	9.3	5.0
Misc. Crustaceans	-	0.3	0.1	0.1	0.4	-	0.1	1.5
Pteropoda	105.9	2.7	1.2	0.6	4.6	5.3	1138.0	5.0
Misc. Mollusca	5.2	39.4	3.4	3.6	26.8	3.6	35.3	14.2
Larvacea	54.8	55.3	18.0	41.2	81.3	80.9	3.7	84.8
Misc. Tunicata	-	2.7	1.1	1.9	1.7	2.0	0.1	0.2
Leptocardia	0.01	0.02	< 0.01	-	0.02	-	0.01	0.01
Misc. Organisms	220.7	44.7	2.4	4.2	45.4	80.9	173.6	98.0
Subtotal	1398.4	1734.4	559.5	515.9	1955.4	1655.8	2290.0	972.8
Fish Eggs	0.62	0.29	-	-	0.20	5.48	0.20	0.72
Fish Larvae	0.99	1.72	0.80	0.80	3.04	2.40	2.75	3.61
Total	1400.0	1736.4	560.3	516.7	1958.6	1663.7	2293.0	977.1

Table 10.--Numbers of plankton organisms per cubic meter of water (Gulf III sampler), cont'd

Station Number	Reg. 79	Reg. 80	Spc. 9
Protozoa	1353.2	403.0	147.2
Coelenterata	7.7	9.1	10.2
Chaetognatha	35.1	7.8	11.4
Misc. Worms	1.8	0.4	0.8
Copepoda	435.6	53.2	75.1
Ostracoda	83.5	1.5	1.4
Mysidacea	0.1	0.1	-
Amphipoda	3.3	0.9	0.6
Isopoda	-	-	0.1
Stomatopoda	0.4	-	0.1
Euphausiacea	3.5	3.2	6.8
Shrimp	2.1	0.8	1.7
Crabs	3.9	-	0.7
Misc. Crustaceans	0.1	-	1.4
Pteropoda	7.3	-	0.3
Misc. Mollusca	44.6	1.9	5.0
Larvacea	59.8	22.0	41.2
Misc. Tunicata	2.6	0.6	0.3
Leptocardia	0.23	-	0.07
Misc. Organisms	68.3	3.3	6.5
Subtotal	2113.1	507.8	310.9
Fish Eggs	<0.01	0.01	0.01
Fish Larvae	1.64	0.53	2.52
Total	2114.8	508.3	313.4

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler)

Tow Number	1	2	3	4	5	6	7	8
Protozoa	47.0	38.3	337.5	485.8	699.3	80.6	72.3	70.1
Coelenterata	6.6	4.0	7.3	3.5	3.0	7.8	3.4	2.9
Chaetognatha	4.8	1.9	9.5	12.2	8.3	4.4	2.8	1.2
Misc. Worms	-	0.3	0.6	0.7	-	0.8	-	-
Copepoda	74.5	54.5	230.9	184.7	213.2	45.8	39.1	48.0
Ostracoda	-	-	0.6	-	-	-	-	-
Mysidacea	-	-	-	-	-	-	-	-
Amphipoda	0.2	0.5	4.2	0.3	0.3	0.3	0.2	-
Isopoda	0.2	-	-	-	-	0.3	-	-
Stomatopoda	0.2	-	1.7	2.1	0.9	0.3	-	-
Euphausiacea	2.8	0.5	-	-	0.3	2.4	0.2	0.5
Shrimp	1.0	0.5	121.4	13.2	15.7	1.0	0.2	1.2
Crabs	1.8	1.9	154.0	35.1	44.1	0.8	1.6	0.7
Misc. Crustaceans	0.5	-	106.6	5.9	2.4	0.3	1.3	0.5
Pteropoda	0.2	0.3	103.6	3.1	2.4	0.5	-	0.7
Misc. Mollusca	2.0	1.1	5.3	4.9	19.2	3.9	2.8	2.7
Larvacea	12.4	4.5	0.8	5.2	10.0	9.7	1.6	6.6
Misc. Tunicata	0.8	2.1	-	0.7	-	1.6	0.2	0.7
Leptocardia	-	-	-	-	-	-	-	-
Misc. Organisms	4.0	4.5	10.0	13.9	586.4	5.8	3.4	3.2
Subtotal	159.0	114.9	1094.0	771.3	1605.5	166.3	129.1	139.0
Fish Eggs	0.25	-	2.23	0.97	0.41	-	0.05	-
Fish Larvae	0.81	0.37	2.07	2.64	1.60	0.21	0.10	0.10
Total	160.1	115.3	1098.3	774.9	1607.5	166.5	129.2	139.1

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	9	10	11	12	13	14	15	16
Protozoa	133.2	284.0	198.8	415.5	723.2	1055.7	130.2	188.8
Coelenterata	1.2	1.4	6.2	1.4	3.0	5.2	3.2	1.6
Chaetognatha	1.6	1.9	6.2	5.8	8.0	13.3	7.3	1.6
Misc. Worms	-	0.3	0.7	-	-	1.6	1.2	-
Copepoda	61.5	85.1	241.3	156.9	371.9	333.4	28.9	15.0
Ostracoda	0.4	-	-	1.2	12.4	17.3	-	-
Mysidacea	-	-	0.4	0.6	13.8	10.1	-	0.1
Amphipoda	0.4	1.4	0.4	0.4	1.4	0.8	0.6	-
Isopoda	-	-	-	-	0.3	-	-	-
Stomatopoda	-	-	1.3	0.4	-	1.6	-	-
Euphausiacea	1.2	0.3	1.3	0.2	0.6	2.0	1.5	0.1
Shrimp	-	-	5.8	318.0	125.9	56.4	3.2	0.6
Crabs	1.2	1.9	7.4	31.2	131.8	82.7	3.2	0.1
Misc. Crustaceans	0.8	-	1.3	1.8	7.2	20.6	2.0	0.2
Pteropoda	0.4	0.6	0.2	17.8	9.7	2.8	0.6	0.2
Misc. Mollusca	3.3	1.1	4.2	40.8	9.7	16.5	0.6	6.4
Larvacea	7.8	16.3	26.3	20.8	35.6	44.8	5.8	5.5
Misc. Tunicata	-	-	1.6	0.8	0.8	2.4	0.3	-
Leptocardia	-	-	-	-	-	-	-	-
Misc. Organisms	4.9	2.8	6.5	-	47.0	26.2	5.0	1.5
Subtotal	217.9	397.1	509.9	1013.6	1502.3	1693.4	193.6	221.7
Fish Eggs	0.24	0.22	0.09	2.20	4.92	25.72	0.12	0.02
Fish Larvae	0.24	0.39	1.92	5.20	1.32	2.10	0.35	0.13
Total	218.4	397.7	511.9	1021.0	1508.5	1721.2	194.1	221.8

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	17	18	19	20	21	22	23	24
Protozoa	154.0	468.4	486.1	27.8	-	13.0	53.3	806.0
Coelenterata	7.8	13.9	4.8	12.3	1.5	4.1	4.2	16.3
Chaetognatha	4.6	5.2	19.7	10.5	8.8	3.4	21.6	3.8
Misc. Worms	-	1.0	1.3	0.3	0.3	-	-	-
Copepoda	56.0	294.1	445.6	569.2	278.9	294.0	74.0	156.8
Ostracoda	-	-	13.4	1.5	0.3	-	0.9	0.9
Mysidacea	-	0.3	13.4	0.9	0.6	1.0	-	-
Amphipoda	1.7	1.6	11.5	3.1	-	-	2.4	0.6
Isopoda	-	-	0.6	-	-	-	-	-
Stomatopoda	-	-	3.2	1.2	0.6	0.7	1.5	20.1
Euphausiacea	1.1	2.9	-	-	-	-	-	0.3
Shrimp	0.3	60.3	23.2	58.3	42.1	69.5	44.3	3.0
Crabs	-	10.6	45.5	49.7	23.4	39.0	90.4	42.0
Misc. Crustaceans	0.3	32.6	36.9	471.1	3.2	8.9	29.0	3.6
Pteropoda	0.6	4.8	5.4	21.9	5.0	20.2	0.9	1.5
Misc. Mollusca	1.7	1.3	7.3	34.9	2.0	17.8	0.9	4.1
Larvacea	26.7	41.9	89.2	51.2	5.3	2.7	3.6	29.6
Misc. Tunicata	-	5.2	3.8	0.9	-	0.7	-	1.8
Leptocardia	-	-	-	0.06	-	-	0.06	-
Misc. Organisms	1.7	-	503.0	34.9	297.5	341.2	15.9	5.6
Subtotal	256.5	944.1	1713.9	1349.8	669.5	816.2	343.0	1096.0
Fish Eggs	-	0.58	7.26	3.40	0.23	4.25	4.25	8.11
Fish Larvae	0.29	1.55	11.53	8.89	0.53	1.99	4.67	1.24
Total	256.8	946.2	1732.7	1362.1	670.3	822.4	351.9	1105.4

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	25	26	27	28	29	30	31	32
Protozoa	1370.8	187.7	280.3	2963.6	177.6	530.0	2717.9	362.6
Coelenterata	10.8	9.7	9.4	10.4	2.9	5.9	1.3	3.8
Chaetognatha	2.5	2.1	4.7	7.7	1.6	4.9	11.3	5.5
Misc. Worms	0.3	-	0.8	2.4	0.5	1.0	0.5	-
Copepoda	106.8	56.2	64.4	335.6	211.4	103.9	173.9	101.4
Ostracoda	-	1.0	0.5	3.8	0.5	2.0	-	-
Mysidacea	0.3	-	-	0.3	1.3	4.9	-	-
Amphipoda	0.9	0.7	0.3	1.5	-	1.0	-	0.5
Isopoda	-	-	-	-	-	-	-	-
Stomatopoda	1.2	0.3	-	0.6	0.8	-	-	1.4
Euphausiacea	3.4	1.4	4.4	1.8	0.3	-	-	-
Shrimp	5.2	1.7	0.5	22.2	132.5	61.8	0.8	13.9
Crabs	5.6	2.1	0.8	4.1	20.7	20.6	7.7	17.0
Misc. Crustaceans	3.1	-	0.5	11.8	11.4	11.8	5.6	-
Pteropoda	1.5	0.7	1.6	2.4	0.3	-	-	1.9
Misc. Mollusca	4.0	0.7	3.7	1.2	4.5	21.6	0.5	1.4
Larvacea	59.0	24.3	6.5	13.0	5.6	40.2	53.1	10.8
Misc. Tunicata	2.5	-	1.3	4.4	1.3	-	1.0	-
Leptocardia	-	-	-	-	1.76	-	0.10	-
Misc. Organisms	255.2	19.1	4.4	207.0	191.7	706.7	1.5	21.3
Subtotal	1833.1	307.7	384.1	3593.8	766.7	1516.3	2975.2	541.5
Fish Eggs	0.56	0.07	-	0.30	2.29	3.14	1.28	0.86
Fish Larvae	0.86	0.07	0.16	1.95	1.12	4.90	0.05	0.43
Total	1834.5	307.8	384.3	3596.0	770.1	1524.3	2976.5	542.8

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	34	35	36	37	38	39	40	41
Protozoa	1235.4	424.8	1396.3	1209.0	1083.3	325.1	*	1760.3
Coelenterata	11.2	9.6	10.4	16.8	23.3	5.3	3.1	3.4
Chaetognatha	6.8	2.6	4.8	4.3	6.6	4.0	8.3	6.6
Misc. Worms	-	-	-	1.1	-	-	2.3	1.1
Copepoda	190.6	64.3	107.6	100.3	89.3	37.7	196.8	242.2
Ostracoda	5.8	0.6	0.8	-	-	0.7	-	0.2
Mysidacea	-	-	-	-	-	-	8.3	7.0
Amphipoda	1.1	0.2	0.5	0.8	1.2	-	1.4	0.7
Isopoda	-	-	-	-	-	-	-	-
Stomatopoda	-	-	0.5	3.0	0.9	3.0	0.3	-
Euphausiacea	3.2	2.0	2.0	0.5	0.9	-	-	-
Shrimp	7.2	1.6	0.5	-	12.3	123.7	43.7	45.7
Crabs	5.0	0.6	3.0	10.5	3.4	3.7	12.0	10.2
Misc. Crustaceans	2.5	-	0.5	-	-	-	11.1	8.8
Pteropoda	3.2	0.7	1.8	1.1	1.6	4.0	0.6	0.4
Misc. Mollusca	3.6	0.7	2.5	2.4	1.9	7.3	10.6	7.2
Larvacea	11.9	5.3	27.7	28.6	55.3	4.3	9.7	7.0
Misc. Tunicata	1.8	0.2	4.3	5.1	6.3	-	-	-
Leptocardia	-	-	-	-	-	-	-	-
Misc. Organisms	14.4	7.4	20.8	4.3	2.2	14.7	133.2	122.3
Subtotal	1503.7	520.6	1584.0	1387.8	1288.5	533.5	441.4*	2223.1
Fish Eggs	-	0.04	-	-	2.14	0.80	1.60	1.58
Fish Larvae	0.86	0.18	0.81	1.08	0.69	0.13	0.86	1.36
Total	1504.6	520.8	1584.8	1388.9	1291.3	534.4	443.9*	2226.0

* Numerous radiolaria, numbers not determined

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	42	43	44	45	46	47	48	49
Protozoa	251.3	1113.4	938.8	467.0	330.6	530.0	919.0	940.7
Coelenterata	0.4	10.1	2.6	4.4	12.4	10.6	11.6	5.0
Chaetognatha	0.6	25.8	0.5	3.1	5.7	13.5	8.1	12.3
Misc. Worms	-	0.3	0.5	0.3	0.5	0.4	0.7	0.3
Copepoda	162.6	387.7	27.1	77.0	92.3	67.2	125.3	271.9
Ostracoda	1.0	25.8	0.3	0.8	0.7	-	9.1	17.0
Mysidacea	9.6	-	-	-	-	-	-	1.0
Amphipoda	0.6	6.0	0.3	0.2	0.2	0.4	1.2	2.1
Isopoda	-	-	-	-	-	-	-	-
Stomatopoda	0.8	1.7	1.3	-	0.5	-	0.5	0.5
Euphausiacea	-	0.7	-	1.3	6.1	4.0	-	0.3
Shrimp	53.6	5.0	0.3	4.8	1.2	2.9	5.2	9.4
Crabs	11.0	5.4	4.0	1.8	0.7	0.7	4.7	2.9
Misc. Crustaceans	5.2	3.0	1.1	1.8	-	-	1.0	-
Pteropoda	0.2	1.3	0.3	0.2	0.7	1.1	2.0	2.1
Misc. Mollusca	3.8	7.0	1.6	1.6	2.8	2.6	3.7	8.9
Larvacea	11.8	23.8	3.7	8.6	17.8	17.9	13.3	25.6
Misc. Tunicata	-	1.0	0.8	0.7	1.2	1.4	4.2	1.0
Leptocardia	-	-	-	-	-	-	-	-
Misc. Organisms	4.8	33.9	4.0	4.0	7.3	14.2	16.5	27.7
Subtotal	517.3	1651.9	987.2	577.6	480.7	666.9	1126.1	1328.7
Fish Eggs	0.52	4.56	-	-	-	-	0.30	1.41
Fish Larvae	0.48	1.88	0.80	0.50	0.07	0.29	0.64	2.36
Total	518.3	1658.3	988.0	578.1	480.8	667.2	1127.0	1332.5

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	50
Protozoa	1707.1
Coelenterata	3.4
Chaetognatha	19.0
Misc. Worms	-
Copepoda	198.3
Ostracoda	5.8
Mysidacea	-
Amphipoda	0.3
Isopoda	-
Stomatopoda	1.5
Euphausiacea	-
Shrimp	18.7
Crabs	7.7
Misc. Crustaceans	0.6
Pteropoda	4.9
Misc. Mollusca	19.0
Larvacea	32.5
Misc. Tunicata	0.3
Leptocardia	-
Misc. Organisms	130.1
Subtotal	2149.2
Fish Eggs	0.92
Fish Larvae	1.04
Total	2151.2

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler)

Run No. 1 Date Sept. 11, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0608	0711	0814	0917	1020	1123	1226	1329
Position of (N. Lat.	26°59'	26°59'	27°00'	27°02'	27°02'	27°02'	27°07'	27°17'
Ship: (W. Long.	79°28'	79°40'	79°42'	79°48'	79°58'	80°02'	80°02'	80°03'
Protozoa	-	4.5	9.0	4.5	112.2	94.3	148.2	134.7
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	13.5	4.5	-	4.5	-	13.5	26.9	49.4
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	166.1	67.4	4.5	9.0	152.7	134.7	130.2	327.8
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	4.5	-	-	-	-	18.0	58.4	4.5
Crabs	4.5	-	-	-	9.0	49.4	220.0	80.8
Misc. Crustaceans	-	4.5	4.5	-	-	-	13.5	4.5
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	9.0	4.5	9.0	-	18.0	40.4	-	4.5
Subtotal	197.6	85.4	27.0	18.0	291.9	350.3	597.2	606.2
Fish Eggs	-	-	-	-	-	-	4.5	-
Fish Larvae	-	-	-	-	4.5	-	-	-
Total	197.6	85.4	27.0	18.0	296.4	350.3	601.7	606.2

Run No. 2 Date Sept. 11, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1552	1655	1758	1901	2004	2107	2210	2313
Position of (N. Lat.	27°34'	27°40'	27°40'	27°43'	27°42'	27°44'	27°44'	27°42'
Ship: (W. Long.	80°04'	80°03'	79°55'	79°47'	79°40'	79°38'	79°29'	79°21'
Protozoa	27.1	-	9.0	-	-	-	-	18.1
Coelenterata	-	-	9.0	-	-	-	-	-
Chaetognatha	-	-	18.1	-	-	-	-	9.0
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	18.1	45.2	72.2	27.1	36.1	36.1	45.2	99.3
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	18.1	-	-	-	-	-	-	-
Crabs	9.0	-	9.0	-	-	-	54.2	18.1
Misc. Crustaceans	-	-	18.1	-	-	9.0	-	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	-	27.1	-	-	-	-	-	-
Subtotal	72.3	72.3	135.4	27.1	36.1	45.1	99.4	144.5
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	9.0
Total	72.3	72.3	135.4	27.1	36.1	45.1	99.4	153.5

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 3 Date Sept. 11-12, 1954								
Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0023	0125	0228	0330	0433	0535	0638	0740
Position of Ship: (N. Lat.	27°42'	27°50'	27°57'	28°00'	28°03'	28°07'	28°12'	28°18'
(W. Long.	79°17'	79°11'	79°03'	79°01'	79°05'	79°14'	79°22'	79°26'
Protozoa	4.7	-	9.3	32.6	4.7	9.3	9.3	23.3
Coelenterata	4.7	4.7	-	4.7	4.7	9.3	4.7	-
Chaetognatha	-	-	-	-	-	9.3	-	-
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	32.6	9.3	18.6	4.7	14.0	14.0	-	46.6
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	4.7	-	-
Crabs	4.7	-	4.7	-	-	-	-	-
Misc. Crustaceans	4.7	-	-	-	-	4.7	-	4.7
Mollusca	-	-	-	-	-	4.7	4.7	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	9.3	-	-	9.3	-	-	4.7	9.3
Subtotal	60.7	14.0	32.6	51.3	23.4	56.0	23.4	83.9
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	4.7	-	-	-	-
Total	60.7	14.0	32.6	56.0	23.4	56.0	23.4	83.9

Run No. 4 Date Sept. 12, 1954								
Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0851	0953	1056	1158	1301	1403	1506	1608
Position of Ship: (N. Lat.	28°20'	28°20'	28°20'	28°22'	28°23'	28°21'	28°21'	28°21'
(W. Long.	79°28'	79°40'	79°48'	79°49'	80°00'	80°10'	80°16'	80°25'
Protozoa	4.2	8.3	8.3	8.3	4.2	104.2	146.0	45.9
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	-	-	-	4.2	4.2	12.5	4.2
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	-	12.5	12.5	-	25.0	108.4	116.8	20.8
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	4.2	-
Crabs	-	-	-	-	-	4.2	33.4	12.5
Misc. Crustaceans	-	-	-	-	-	-	-	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	4.2	-	-	4.2	-	-	-	4.2
Subtotal	8.4	20.8	20.8	12.5	33.4	221.0	312.9	87.6
Fish Eggs	-	-	-	-	-	4.2	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	8.4	20.8	20.8	12.5	33.4	225.2	312.9	87.6

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 5 Date Sept. 12-13, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1751	1853	1956	2058	2201	2303	0006	0108
Position of Ship: (N. Lat.	28°23'	28°33'	28°41'	28°47'	28°56'	29°00'	29°00'	29°00'
(W. Long.	80°27'	80°22'	80°25'	80°26'	80°31'	80°27'	80°16'	80°09'
Protozoa	10.0	-	50.1	70.1	40.1	100.2	310.6	120.2
Coelenterata	-	10.0	-	-	-	-	-	10.0
Chaetognatha	-	-	-	10.0	20.0	20.0	30.1	-
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	10.0	30.1	30.1	110.2	230.5	170.3	230.5	110.2
Ostracoda	-	-	-	10.0	-	-	-	10.0
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	10.0	20.0	10.0	30.1	10.0	-	-
Crabs	-	-	20.0	10.0	10.0	60.1	110.2	10.0
Misc. Crustaceans	-	40.1	-	10.0	20.0	30.1	10.0	-
Mollusca	-	-	-	-	-	-	10.0	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	40.1	-	30.1	50.1	30.1	20.0	50.1	-
Subtotal	60.1	90.2	150.3	280.4	380.8	410.7	751.5	260.4
Fish Eggs	-	-	-	-	10.0	20.0	10.0	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	60.1	90.2	150.3	280.4	390.8	430.7	761.5	260.4

Run No. 6 Date Sept. 13, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0231	0333	0436	0538	0641	0743	0846	0948
Position of Ship: (N. Lat.	29°01'	29°00'	29°01'	29°02'	29°01'	29°00'	29°03'	29°12'
(W. Long.	80°00'	79°51'	79°48'	79°42'	79°34'	79°27'	79°27'	79°29'
Protozoa	12.7	25.4	12.7	8.5	33.9	8.5	21.2	50.9
Coelenterata	4.2	17.0	-	-	4.2	-	-	-
Chaetognatha	8.5	-	4.2	4.2	8.5	-	4.2	4.2
Misc. Worms	-	-	-	4.2	-	-	-	-
Copepoda	63.6	33.9	-	17.0	33.9	29.7	29.7	33.9
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	4.2	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	4.2	-	-
Crabs	8.5	-	-	-	-	4.2	-	-
Misc. Crustaceans	-	4.2	-	-	8.5	4.2	-	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	-	4.2	-	-	-	-	4.2	4.2
Misc. Organisms	12.7	12.7	12.7	8.5	-	4.2	-	4.2
Subtotal	114.4	97.4	29.6	42.4	89.0	55.0	59.3	97.4
Fish Eggs	-	-	-	-	-	-	4.2	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	114.4	97.4	29.6	42.4	89.0	55.0	63.5	97.4

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 7 Date Sept. 13, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1101	1203	1305	1407	1509	1611	1713	1815
Position of Ship: (N. Lat.	29°25'	29°35'	29°40'	29°40'	29°40'	29°41'	29°42'	29°42'
(W. Long.	79°33'	79°36'	79°37'	79°42'	79°53'	80°00'	80°04'	80°13'
Protozoa	24.8	4.1	4.1	12.4	4.1	49.7	20.7	99.4
Coelenterata	-	-	-	-	-	4.1	-	-
Chaetognatha	-	-	-	4.1	4.1	8.3	-	4.1
Misc. Worms	-	-	-	-	4.1	-	-	4.1
Copepoda	4.1	20.7	8.3	49.7	8.3	4.1	41.4	86.9
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	37.3
Crabs	-	-	-	-	-	-	-	8.3
Misc. Crustaceans	4.1	-	-	4.1	-	-	-	29.0
Mollusca	8.3	4.1	4.1	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	12.4	-	-	-	12.4	8.3	12.4	45.5
Subtotal	53.7	28.9	16.5	70.3	33.0	74.5	74.5	314.6
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	53.7	28.9	16.5	70.3	33.0	74.5	74.5	314.6

Run No. 8 Date Sept. 13-14, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1940	2039	2139	2238	2338	0037	0137	0236
Position of Ship: (N. Lat.	29°41'	29°41'	29°40'	29°39'	29°39'	29°41'	29°46'	29°54'
(W. Long.	80°24'	80°34'	80°42'	80°49'	80°58'	81°06'	81°10'	81°11'
Protozoa	168.0	120.0	162.0	36.0	12.0	6.0	18.0	18.0
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	-	-	12.0	120.0	42.0	54.0	60.0
Misc. Worms	-	-	-	-	12.0	-	-	6.0
Copepoda	126.0	300.0	90.0	216.0	270.0	372.0	192.0	498.0
Ostracoda	18.0	-	-	-	-	-	-	-
Amphipoda	-	12.0	12.0	24.0	6.0	-	-	-
Shrimp	6.0	6.0	-	42.0	48.0	174.0	168.0	210.0
Crabs	24.0	24.0	12.0	24.0	36.0	198.0	42.0	108.0
Misc. Crustaceans	-	12.0	108.0	450.0	216.0	6.0	6.0	6.0
Mollusca	-	-	-	-	6.0	18.0	-	-
Invertebrate Eggs	-	-	-	-	6.0	-	-	6.0
Misc. Organisms	24.0	90.0	48.0	162.0	60.0	18.0	30.0	48.0
Subtotal	366.0	564.0	432.0	966.0	792.0	834.0	510.0	960.0
Fish Eggs	-	-	-	6.0	-	-	-	-
Fish Larvae	-	-	-	-	6.0	-	-	-
Total	366.0	564.0	432.0	972.0	798.0	834.0	510.0	960.0

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 9 Date Sept. 14, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0342	0443	0543	0644	0744	0845	0945	1046
Position of (N. Lat.	30°00'	30°08'	30°18'	30°21'	30°21'	30°21'	30°20'	30°20'
Ship: (W. Long.	81°13'	81°16'	81°19'	81°16'	81°06'	80°58'	80°50'	80°39'
Protozoa	27.8	-	55.6	-	-	-	-	194.7
Coelenterata	-	-	-	-	-	-	-	27.8
Chaetognatha	55.6	-	-	-	-	27.8	-	55.6
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	1613.0	361.5	361.5	389.3	166.9	361.5	250.3	611.8
Ostracoda	-	27.8	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	417.2	27.8	-	-	-	27.8	27.8	111.2
Crabs	445.0	-	-	27.8	27.8	-	-	222.5
Misc. Crustaceans	83.4	-	-	-	27.8	-	111.2	-
Mollusca	-	-	-	-	-	27.8	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	83.4	27.8	-	-	27.8	-	-	55.6
Subtotal	2725.4	444.9	417.1	417.1	250.3	444.9	389.3	1279.2
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	2725.4	444.9	417.1	417.1	250.3	444.9	389.3	1279.2

Run No. 10 Date Sept. 14, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1217	1317	1417	1517	1617	1717	1817	1917
Position of (N. Lat.	30°19'	30°18'	30°18'	30°19'	30°20'	30°21'	30°22'	30°20'
Ship: (W. Long.	80°27'	80°16'	80°10'	80°02'	79°51'	79°46'	79°39'	79°30'
Protozoa	118.0	636.1	389.9	179.6	174.4	112.9	20.5	25.6
Coelenterata	5.1	-	-	15.4	5.1	10.3	10.3	-
Chaetognatha	20.5	-	-	10.3	10.3	-	-	-
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	118.0	133.4	71.8	56.4	30.8	51.3	35.9	15.4
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	5.1	-	-	-	-	-	-
Crabs	10.3	5.1	-	-	-	-	-	-
Misc. Crustaceans	-	5.1	-	5.1	10.3	5.1	-	5.1
Mollusca	5.1	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	35.9	5.1	10.3	20.5	-	10.3	-	5.1
Subtotal	312.9	789.9	472.0	287.3	230.9	189.9	66.7	51.2
Fish Eggs	5.1	-	-	-	-	-	-	-
Fish Larvae	5.1	-	-	-	-	-	-	-
Total	323.1	789.9	472.0	287.3	230.9	189.9	66.7	51.2

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 11 Date Sept. 14-15, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2025	2130	2235	2340	0045	0150	0255	0400
Position of (N. Lat.	30°24'	30°34'	30°44'	30°56'	31°00'	31°01'	31°00'	31°02'
Ship: (W. Long.	79°26'	79°22'	79°18'	79°14'	79°15'	79°22'	79°33'	79°35'
Protozoa	10.2	50.8	15.2	50.8	66.0	5.1	96.5	71.1
Coelenterata	-	-	5.1	-	-	-	-	-
Chaetognatha	5.1	5.1	-	5.1	-	10.2	10.2	-
Misc. Worms	-	-	-	5.1	-	-	5.1	-
Copepoda	20.3	30.5	15.2	10.2	30.5	25.4	30.5	45.7
Ostracoda	-	-	-	-	-	-	-	5.1
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	5.1
Crabs	5.1	-	5.1	-	-	-	-	-
Misc. Crustaceans	-	-	-	-	-	-	-	-
Mollusca	-	5.1	5.1	-	10.2	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	10.2	20.3	10.2	-	-	5.1	-	10.2
Subtotal	50.9	111.8	55.9	71.2	106.7	45.8	142.3	137.2
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	50.9	111.8	55.9	71.2	106.7	45.8	142.3	137.2

Run No. 12 Date Sept. 15, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0532	0632	0732	0832	0932	1032	1132	1232
Position of (N. Lat.	31°02'	31°01'	31°01'	31°02'	31°01'	31°01'	31°01'	31°00'
Ship: (W. Long.	79°45'	79°55'	80°03'	80°12'	80°21'	80°30'	80°38'	80°46'
Protozoa	48.9	890.0	469.4	166.3	630.8	332.5	166.3	92.9
Coelenterata	9.8	-	-	4.9	-	-	-	-
Chaetognatha	4.9	14.7	-	-	14.7	-	14.7	39.1
Misc. Worms	-	14.7	-	-	-	4.9	-	-
Copepoda	151.6	151.6	58.7	78.2	48.9	39.1	29.3	92.9
Ostracoda	14.7	9.8	-	-	-	-	-	9.8
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	14.7	14.7	-	-	-	4.9	4.9	19.6
Crabs	-	4.9	-	4.9	24.4	4.9	9.8	14.7
Misc. Crustaceans	-	-	-	4.9	-	-	4.9	4.9
Mollusca	4.9	4.9	-	-	-	4.9	-	-
Invertebrate Eggs	-	-	-	4.9	-	-	-	9.8
Misc. Organisms	4.9	-	4.9	-	29.3	44.0	29.3	151.6
Subtotal	254.4	1105.3	533.0	264.1	748.1	435.2	259.2	435.3
Fish Eggs	-	-	9.8	4.9	-	-	-	-
Fish Larvae	-	-	-	-	-	-	4.9	-
Total	254.4	1105.3	542.8	269.0	748.1	435.2	264.1	435.3

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 13 Date Sept. 20-21, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1932	2036	2140	2244	2348	0052	0156	
Position of (N. Lat.	31°22'	31°28'	31°37'	31°41'	31°42'	31°49'	31°56'	
Ship: (W. Long.	80°52'	80°46'	80°40'	80°36'	80°30'	80°36'	80°43'	
Protozoa	135.0	121.5	27.0	-	-	-	-	
Coelenterata	-	-	-	-	-	-	-	
Chaetognatha	27.0	13.5	-	13.5	54.0	27.0	13.5	
Misc. Worms	-	-	-	-	-	-	-	
Copepoda	54.0	324.0	121.5	162.0	27.0	94.5	189.0	
Ostracoda	-	-	-	-	-	-	-	
Amphipoda	-	-	-	-	-	-	-	
Shrimp	27.0	27.0	13.5	-	40.5	27.0	13.5	
Crabs	13.5	-	-	27.0	-	13.5	-	
Misc. Crustaceans	-	13.5	-	27.0	27.0	27.0	13.5	
Mollusca	-	-	-	-	-	-	-	
Invertebrate Eggs	-	-	-	-	-	-	-	
Misc. Organisms	40.5	13.5	27.0	27.0	13.5	40.5	40.5	
Subtotal	297.0	513.0	189.0	256.5	162.0	229.5	270.0	
Fish Eggs	-	-	-	-	-	-	-	
Fish Larvae	-	-	-	-	13.5	-	-	
Total	297.0	513.0	189.0	256.5	175.5	229.5	270.0	

Run No. 14 Date Sept. 21, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1331	1433	1535	1637	1739	1841		
Position of (N. Lat.	31°38'	31°38'	31°36'	31°36'	31°35'	31°33'		
Ship: (W. Long.	80°12'	80°04'	79°55'	79°51'	79°45'	79°34'		
Protozoa	18.3	97.4	85.3	18.3	170.5	121.8		
Coelenterata	-	-	-	-	6.1	6.1		
Chaetognatha	36.5	-	6.1	12.2	12.2	12.2		
Misc. Worms	-	-	-	-	-	-		
Copepoda	170.5	30.4	30.4	67.0	30.4	24.4		
Ostracoda	-	-	-	-	-	-		
Amphipoda	-	-	-	-	-	-		
Shrimp	-	-	-	6.1	-	-		
Crabs	12.2	-	-	6.1	-	6.1		
Misc. Crustaceans	-	-	-	-	-	-		
Mollusca	-	-	12.2	18.3	-	-		
Invertebrate Eggs	-	-	-	-	-	-		
Misc. Organisms	36.5	24.4	103.5	188.8	48.7	30.4		
Subtotal	274.0	152.2	237.5	316.8	267.9	201.0		
Fish Eggs	-	-	6.1	-	-	-		
Fish Larvae	-	-	-	-	-	-		
Total	274.0	152.2	243.6	316.8	267.9	201.0		

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 16 Date Sept. 25, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1126	1228	1331	1433	1536	1638	1741	1843
Position of (N. Lat.	32°44'	32°50'	32°53'	32°50'	32°42'	32°39'	32°33'	32°26'
Ship: (W. Long.	79°29'	79°21'	79°16'	79°12'	79°03'	78°59'	78°54'	78°46'
Protozoa	-	-	-	-	-	-	18.7	56.1
Coelenterata	-	-	-	-	-	18.7	-	18.7
Chaetognatha	-	-	-	-	-	18.7	-	-
Misc. Worms	-	-	-	-	37.4	-	-	-
Copepoda	18.7	93.4	18.7	18.7	56.1	37.4	18.7	37.4
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	18.7	-	-	-	18.7	-
Misc. Crustaceans	-	-	18.7	-	-	-	-	-
Mollusca	-	-	-	-	-	18.7	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	18.7	-	-	18.7	18.7	37.4	-	18.7
Subtotal	37.4	93.4	56.1	37.4	112.2	130.9	56.1	130.9
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	37.4	93.4	56.1	37.4	112.2	130.9	56.1	130.9

Run No. 17 Date Sept. 25-26, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2050	2150	2250	2350	0050	0150	0250	0350
Position of (N. Lat.	32°15'	32°11'	32°11'	32°07'	31°58'	31°57'	32°00'	32°04'
Ship: (W. Long.	78°32'	78°26'	78°21'	78°15'	78°10'	78°08'	78°03'	77°55'
Protozoa	113.9	135.3	21.4	42.7	42.7	28.5	21.4	121.0
Coelenterata	-	7.1	-	-	-	-	-	21.4
Chaetognatha	14.2	-	-	-	-	-	-	14.2
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	121.0	14.2	7.1	7.1	14.2	7.1	14.2	7.1
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	14.2	-	-	-	-	-	-	-
Misc. Crustaceans	7.1	-	7.1	-	14.2	-	-	7.1
Mollusca	7.1	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	7.1	-	-
Misc. Organisms	14.2	21.4	7.1	-	7.1	14.2	-	7.1
Subtotal	291.7	178.0	42.7	49.8	78.2	56.9	35.6	177.9
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	291.7	178.0	42.7	49.8	78.2	56.9	35.6	177.9

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 18 Date Sept. 26, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0524	0626	0728	0830	0932	1034	1136	1238
Position of (N. Lat.	32°15'	32°20'	32°23'	32°28'	32°32'	32°34'	32°37'	32°44'
Ship: (W. Long.	77°37'	77°31'	77°33'	77°40'	77°46'	77°47'	77°51'	77°58'
Protozoa	77.3	36.6	187.2	354.1	215.7	459.9	370.4	407.0
Coelenterata	4.1	-	4.1	8.1	4.1	-	-	-
Chaetognatha	4.1	-	4.1	8.1	-	-	20.4	-
Misc. Worms	4.1	-	-	-	-	-	4.1	-
Copepoda	77.3	20.4	8.1	32.6	32.6	48.8	32.6	48.8
Ostracoda	-	-	4.1	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	12.2	-	4.1	-	-	-	-	-
Misc. Crustaceans	-	4.1	-	-	-	-	-	-
Mollusca	4.1	-	-	4.1	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	8.1	4.1	4.1	8.1	4.1	4.1	4.1	8.1
Subtotal	191.3	65.2	215.8	415.1	256.5	512.8	431.6	463.9
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	191.3	65.2	215.8	415.1	256.5	512.8	431.6	463.9

Run No. 19 Date Sept. 26, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1426	1529	1633	1736	1840	1943	2047	2150
Position of (N. Lat.	32°51'	32°58'	33°04'	33°09'	33°15'	33°22'	33°28'	33°32'
Ship: (W. Long.	78°07'	78°16'	78°23'	78°29'	78°36'	78°44'	78°52'	78°51'
Protozoa	32.0	85.4	10.7	53.4	64.0	32.0	533.5	202.7
Coelenterata	-	21.3	-	-	-	21.3	-	-
Chaetognatha	-	-	-	10.7	-	10.7	32.0	10.7
Misc. Worms	-	-	-	-	-	-	21.3	-
Copepoda	-	74.7	-	32.0	96.0	64.0	160.0	96.0
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	10.7	10.7	21.3	96.0	10.7
Crabs	-	-	-	-	-	-	-	10.7
Misc. Crustaceans	-	-	-	-	74.7	10.7	32.0	-
Mollusca	-	-	10.7	-	-	-	21.3	-
Invertebrate Eggs	-	-	-	-	-	-	10.7	-
Misc. Organisms	10.7	42.7	21.3	21.3	53.4	10.7	21.3	10.7
Subtotal	42.7	224.1	42.7	128.1	298.8	170.7	928.1	341.5
Fish Eggs	-	-	-	10.7	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	42.7	224.1	42.7	138.8	298.8	170.7	928.1	341.5

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 20 Date Sept. 26-27, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2300	2359	0059	0158	0258	0357	0457	0556
Position of Ship: (N. Lat.)	33°33'	33°34'	33°35'	33°36'	33°37'	33°35'	33°29'	33°22'
(W. Long.)	78°39'	78°28'	78°23'	78°11'	78°00'	77°55'	77°46'	77°39'
Protozoa	176.1	35.2	-	23.5	23.5	-	11.7	23.5
Coelenterata	-	-	11.7	-	-	-	-	-
Chaetognatha	-	-	23.5	23.5	-	-	11.7	-
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	540.0	187.8	58.7	47.0	105.7	152.6	93.9	35.2
Ostracoda	-	-	-	-	11.7	-	11.7	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	47.0	11.7	35.2	35.2	35.2	11.7	-	-
Crabs	23.5	11.7	-	-	11.7	23.5	11.7	-
Misc. Crustaceans	11.7	-	11.7	-	11.7	35.2	140.9	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	23.5	-	-	11.7	-	-	-	-
Misc. Organisms	47.0	11.7	23.5	23.5	23.5	-	35.2	93.9
Subtotal	868.8	258.1	164.3	164.4	223.0	223.0	316.8	152.6
Fish Eggs	-	-	-	-	11.7	11.7	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	868.8	258.1	164.3	164.4	234.7	234.7	316.8	152.6

Run No. 21 Date Sept. 27, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0742	0845	0948	1051	1154	1257	1400	1503
Position of Ship: (N. Lat.)	33°14'	33°09'	33°07'	33°00'	32°53'	32°55'	32°53'	32°47'
(W. Long.)	77°27'	77°21'	77°19'	77°13'	77°06'	77°05'	77°00'	76°54'
Protozoa	425.7	326.8	301.0	301.0	593.4	318.2	172.0	30.1
Coelenterata	-	4.3	4.3	-	-	-	-	4.3
Chaetognatha	4.3	-	4.3	4.3	17.2	4.3	-	8.6
Misc. Worms	4.3	-	-	-	-	-	-	-
Copepoda	176.3	38.7	8.6	30.1	64.5	34.4	38.7	38.7
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	4.3	-	-	-	-	-	-	-
Crabs	30.1	-	-	-	-	-	4.3	4.3
Misc. Crustaceans	8.6	-	-	-	4.3	-	8.6	-
Mollusca	4.3	-	-	-	4.3	-	-	-
Invertebrate Eggs	8.6	-	-	-	-	-	-	-
Misc. Organisms	25.8	12.9	-	8.6	30.1	4.3	17.2	-
Subtotal	692.3	382.7	318.2	344.0	713.8	361.2	240.8	86.0
Fish Eggs	4.3	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	696.6	382.7	318.2	344.0	713.8	361.2	240.8	86.0

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 22 Date Sept. 27, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1611	1713	1815	1917	2019	2121	2223	2325
Position of Ship: (N. Lat.	32°42'	32°43'	32°46'	32°56'	33°06'	33°15'	33°18'	33°22'
(W. Long.	76°48'	76°53'	76°51'	76°38'	76°33'	76°27'	76°25'	76°28'
Protozoa	43.0	68.8	68.8	51.6	103.2	30.1	111.8	51.6
Coelenterata	8.6	-	4.3	8.6	4.3	-	8.6	4.3
Chaetognatha	12.9	-	12.9	4.3	-	-	-	8.6
Misc. Worms	-	4.3	-	-	-	-	-	-
Copepoda	55.9	12.9	25.8	38.7	81.7	21.5	25.8	34.4
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	4.3	4.3	-	-	-	4.3	-	4.3
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	-	-	-	8.6	-	-	4.3
Mollusca	-	-	-	-	-	4.3	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	12.9	4.3	8.6	4.3	17.2	-	-	4.3
Subtotal	137.6	94.6	120.4	107.5	215.0	60.2	146.2	111.8
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	137.6	94.6	120.4	107.5	215.0	60.2	146.2	111.8

Run No. 23 Date Sept. 28, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0045	0148	0251	0354	0457	0600	0703	0806
Position of Ship: (N. Lat.	33°28'	33°32'	33°38'	33°43'	33°48'	33°54'	33°57'	34°04'
(W. Long.	76°36'	76°37'	76°43'	76°55'	77°00'	77°09'	77°15'	77°22'
Protozoa	140.2	323.0	293.2	463.2	425.0	187.0	340.0	365.5
Coelenterata	-	-	-	4.2	-	-	-	-
Chaetognatha	-	-	-	8.5	4.2	8.5	4.2	-
Misc. Worms	-	-	-	-	-	4.2	-	-
Copepoda	21.2	97.8	80.8	123.2	170.0	76.5	8.5	29.8
Ostracoda	-	8.5	17.0	4.2	4.2	4.2	-	-
Amphipoda	-	-	-	12.8	4.2	-	-	-
Shrimp	8.5	-	4.2	-	-	4.2	-	-
Crabs	-	-	-	-	-	8.5	8.5	-
Misc. Crustaceans	-	-	4.2	17.0	4.2	-	-	-
Mollusca	-	-	-	8.5	-	-	-	8.5
Invertebrate Eggs	-	25.5	-	-	-	-	-	-
Misc. Organisms	8.5	25.5	25.5	34.0	46.8	4.2	-	-
Subtotal	178.4	480.3	424.9	675.6	658.6	297.3	361.2	403.8
Fish Eggs	-	-	-	4.2	-	4.2	-	-
Fish Larvae	-	-	-	4.2	-	-	-	-
Total	178.4	480.3	424.9	684.0	658.6	301.5	361.2	403.8

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 24 Date Sept. 28, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0941	1042	1144	1245	1347	1448	1550	1651
Position of (N. Lat.	34°11'	34°16'	34°21'	34°25'	34°29'	34°30'	34°26'	34°20'
Ship: (W. Long.	77°27'	77°21'	77°11'	77°05'	76°55'	76°49'	76°41'	76°34'
Protozoa	-	35.3	17.6	11.8	58.8	17.6	-	-
Coelenterata	-	-	-	5.9	-	-	-	-
Chaetognatha	17.6	-	-	-	-	5.9	-	11.8
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	17.6	23.5	23.5	-	17.6	11.8	-	5.9
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	11.8	-	5.9	-	11.8	-	5.9	5.9
Misc. Crustaceans	-	-	-	-	-	-	-	-
Mollusca	-	-	-	-	-	5.9	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	23.5	5.9	5.9	-	-	-	-	11.8
Subtotal	70.5	64.7	52.9	17.7	88.2	41.2	5.9	35.4
Fish Eggs	-	-	-	-	-	-	-	5.9
Fish Larvae	-	-	-	-	-	-	-	-
Total	70.5	64.7	52.9	17.7	88.2	41.2	5.9	41.3

Run No. 25 Date Sept. 28-29, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1842	1950	2058	2206	2314	0022	0130	0238
Position of (N. Lat.	34°11'	34°04'	34°02'	33°55'	33°54'	33°58'	34°06'	34°10'
Ship: (W. Long.	76°25'	76°17'	76°12'	76°02'	75°54'	75°45'	75°30'	75°21'
Protozoa	37.1	407.9	247.2	37.1	41.2	37.1	12.4	8.2
Coelenterata	-	4.1	-	4.1	20.6	-	12.4	-
Chaetognatha	-	-	-	-	4.1	12.4	-	-
Misc. Worms	-	-	-	4.1	-	-	-	-
Copepoda	185.4	86.5	94.8	65.9	94.8	37.1	24.7	4.1
Ostracoda	4.1	4.1	28.8	4.1	-	-	-	-
Amphipoda	-	-	-	-	4.1	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	8.2	-	-	-
Misc. Crustaceans	-	-	-	-	-	4.1	-	-
Mollusca	12.4	4.1	4.1	4.1	-	-	4.1	-
Invertebrate Eggs	-	-	4.1	4.1	-	-	-	-
Misc. Organisms	20.6	24.7	61.8	16.5	37.1	16.5	12.4	-
Subtotal	259.6	531.4	440.8	140.0	210.1	107.2	66.0	12.3
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	259.6	531.4	440.8	140.0	210.1	107.2	66.0	12.3

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 26 Date Sept. 29, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0439	0542	0645	0748	0851	0954	1057	1200
Position of (N. Lat.	34°15'	34°25'	34°32'	34°37'	34°38'	34°41'	34°49'	34°55'
Ship: (W. Long.	75°15'	75°07'	74°57'	74°53'	74°51'	74°50'	74°57'	75°03'
Protozoa	33.8	37.6	45.1	26.3	15.0	37.6	15.0	105.3
Coelenterata	3.8	3.8	-	-	-	-	-	-
Chaetognatha	-	-	3.8	7.5	-	3.8	-	-
Misc. Worms	-	-	3.8	-	-	-	-	-
Copepoda	56.4	30.1	22.6	33.8	48.9	15.0	3.8	45.1
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	7.5	7.5	3.8	3.8	3.8	-	-	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	3.8
Misc. Organisms	11.3	-	-	-	-	11.3	-	3.8
Subtotal	112.8	79.0	79.1	71.4	67.7	67.7	18.8	158.0
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	112.8	79.0	79.1	71.4	67.7	67.7	18.8	158.0

Run No. 27 Date Sept. 29, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1416	1518	1620	1722	1824	1926	2028	2130
Position of (N. Lat.	35°05'	35°07'	35°07'	35°04'	35°00'	34°55'	34°45'	34°38'
Ship: (W. Long.	75°08'	75°17'	75°24'	75°34'	75°43'	75°47'	75°51'	75°53'
Protozoa	205.8	259.6	35.8	17.9	17.9	9.0	331.2	277.4
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	-	9.0	-	-	-	-	-
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	44.8	53.7	17.9	-	80.6	89.5	80.6	17.9
Ostracoda	-	-	-	-	17.9	35.8	26.8	9.0
Amphipoda	-	-	-	-	-	9.0	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	9.0	9.0	-
Misc. Crustaceans	-	17.9	-	-	-	-	-	9.0
Mollusca	-	-	-	9.0	152.2	80.6	9.0	9.0
Invertebrate Eggs	-	9.0	-	-	-	44.8	-	-
Misc. Organisms	9.0	-	26.8	-	-	17.9	26.8	9.0
Subtotal	259.6	340.2	89.5	26.9	268.6	295.6	483.4	331.3
Fish Eggs	-	-	-	9.0	-	-	-	-
Fish Larvae	-	-	-	-	-	-	17.9	-
Total	259.6	340.2	89.5	35.9	268.6	295.6	501.3	331.3

Table 13.--List of the species of fish in dip-net, trolling, and stomach contents (D-dip net; T-trolling; S-stomach contents)

Ablennes hians (Valenciennes) D
Abudefduf saxatilis (Linnaeus) D
Acanthurus coeruleus
Bloch & Schneider S
Ahlia egmontis (Jordan) D
Alectis crinitus (Mitchill) D
Allanetta harringtonensis (Goode) D
Alutera sp. D
Alutera scripta (Osbeck) D
Aluteridae, unidentified S
Amanses pullus (Ranzani) D
Balistes capriscus Gmelin D S
Canthidermis sufflamen (Mitchill) D
Caranx bartholomaei Cuvier D
Caranx crysos (Mitchill) D T S
Caranx latus Agassiz D
Caranx ruber (Bloch) D
Carcharhinus floridanus
Bigelow, Schroeder, & Springer T
Chloroscombrus chrysurus (Linnaeus) D
Clupeidae, unidentified D S
Coryphaena hippurus Linnaeus D T
Cypselurus comatus (Mitchill) D
Cypselurus cyanopterus
(Valenciennes) D
Cypselurus heterurus (Rafinesque) D
Decapterus punctatus (Agassiz) D S
Diodon holacanthus Linnaeus D
Elagatis bipinnulatus
(Quoy & Gaimard) D
Etrumeus sadina (Mitchill) S
Eupomacentrus sp. ? D
Euthynnus alletteratus
(Rafinesque) T
Fistularia tabacaria Linnaeus S
Hemiramphus balao Lesueur D
Hemiramphus brasiliensis
(Linnaeus) D
Hippocampus sp. S
Histrio histrio (Linnaeus) D
Holocentrus rufus (Walbaum) S
Holocentrus vexillarius Poey D
Hygophum benoiti (Cocco) ? D
Hyporhamphus unifasciatus
(Ranzani) D
Istiophoridae, unidentified D
Istiophorus americanus (Cuvier) D
Katsuwonus pelamis (Linnaeus) T
Kyphosus incisor (Cuvier) D
Kyphosus sectatrix (Linnaeus) D
Lutianus sp. D
Monacanthus ciliatus (Mitchill) D
Monacanthus ciliatus ? S
Monacanthus tuckeri Bean D
Mugil curema Valenciennes D
Myctophum affine (Lütken) D
Myctophum nitidulum (Garman) D
Myctophum obtusirostris Taning D
Myrophis platyrhynchus Breder D
Opisthonema oglinum (Lesueur) D
Parexocoetus brachypterus
(Richardson) D
Peprilus alepidotus (Linnaeus) D
Phtheirichthys lineatus (Menzies) D
Pseudopriacanthus altus (Gill) D S
Prognichthys gibbifrons
(Valenciennes) D
Pterolamiops longimanus (Poey) T
Scomberomorus cavalla (Cuvier) T
Scomberomorus regalis (Bloch) T
Scombridae, unidentified D S
Seriola dumerili (Risso) D T
Seriola falcata Valenciennes D
Sphaeroides sp. D
Sphyraena barracuda (Walbaum) T
Stephanolepis hispidus
(Linnaeus) D S
Stephanolepis setifer (Bennett) D
Strongylura acus (Lacepede) D
Strongylura ardeola (Valenciennes) D
Strongylura longleyi Breder D
Strongylura raphidoma (Ranzani) D
Syngnathus pelagicus Linnaeus D
Synodus sp. D
Thunnus albacares (Bonnaterre) T
Thunnus atlanticus (Lesson) T
Thunnus thynnus (Linnaeus) T
Trachinocephalus myops (Forster) D
Trachinotus carolinus (Linnaeus) D
Xiphias gladius Linnaeus D

Table 14.--Numbers and species of fish taken by trolling

Species	Date (1954)	Time (EST)	Location N.lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
Carcharhinus floridanus /1	Sept. 27	0910	33°07'	77°20'	F	--	1800 /2	--	Squid (1)
Pterolamiops longimanus /1	Sept. 29	0830	34°38'	74°52'	F	--	1525 /2	65.0	--
Sphyraena barracuda	Aug. 30	1000	26°46'	79°54'	M	I	680	5.0	none
"	Sept. 10	1345	25°51'	77°45'	M	IV	742	5.7	none
"	Sept. 15	0850	31°02'	80°17'	M	II	870	9.5	none
Katsuwonus pelamis	Sept. 12	0700	28°14'	79°24'	M	I	445	3.5	Holocentrus rufus (41); Acanthurus coeruleus (2); stomatopods (6); crabs (2)
Euthynnus alletteratus	Aug. 28	0940	29°12'	80°29'	M	--	575	6.5	Decapterus punctatus (2); Scombridae, unidentified (1); squid (1)
"	Aug. 28	1020	29°07'	80°25'	F	III	712	11.0	Decapterus punctatus (1); Monacanthus ciliatus ? (1); Stephanolepis hispidus (1)
"	Aug. 28	1035	29°05'	80°24'	M	--	589	7.0	none
"	Aug. 28	1205	28°50'	80°20'	F	IV	562	5.5	Caranx crysos (1); squid (5)
"	Aug. 28	1400	28°32'	80°16'	M	V	698	12.5	Decapterus punctatus (3); Scombridae, unidentified (1); squid (14)
"	Aug. 28	1400	28°32'	80°16'	M	III-IV	801	16.0	combined with above fish
"	Aug. 28	1545	28°14'	80°14'	F	V-VI	740	13.0	--

/1 Hook and line

/2 Total length

Table 14.--Numbers and species of fish taken by trolling (cont'd)

Species	Date (1954)	Time (EST)	Location N.lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
Euthynnus alletteratus (cont'd)									
"	Sept. 4	1000	25°34'	77°38'	F	VII-I	480	4.0	none
"	Sept. 4	1015	25°31'	77°37'	F	VII-I	520	4.5	none
"	Sept. 11	1040	27°01'	80°00'	F	VII	512	4.5	Etrumeus sadina (3)
"	Sept. 11	1530	27°30'	80°03'	M	V-VI	723	12.5	fish remains, unidentified
"	Sept. 11	1535	27°31'	80°03'	M	VI	742	13.0	none
"	Sept. 11	1538	27°31'	80°04'	M	VI	713	11.5	none
"	Sept. 11	1600	27°35'	80°04'	M	IV	611	7.5	squid (1)
"	Sept. 11	1610	27°36'	80°04'	M	IV	651	9.5	none
"	Sept. 11	1610	27°36'	80°04'	F	VI	713	12.0	fish remains, unidentified
"	Sept. 15	0853	31°02'	80°18'	M	V-VI	645	8.0	none
"	Sept. 15	0855	31°02'	80°18'	F	VI	740	12.5	fish remains, unidentified
"	Sept. 21	1438	31°37'	80°03'	M	IV	555	5.0	fish remains, unidentified; squid
"	Sept. 21	1440	31°37'	80°03'	M	IV	562	6.0	none
"	Sept. 26	1530	32°58'	78°15'	M	VII	720	11.5	Decapterus punctatus (4); Pseudopriacanthus altus (1); Stephanolepis hispidus (1); Scombridae, unidentified (3); fish remains, unidentified (7); decapods (2); stomatopods (7)
"	Sept. 26	1535	32°59'	78°16'	F	VII	671	11.0	Fistularia tabacaria (1); Decapterus punctatus (4); Scombridae, unidentified (1); fish remains, unidentified (2); stomatopods (20); copepods (4); crabs (4)

Table 14.--Numbers and species of fish taken by trolling (cont'd)

Species	Date (1954)	Time (EST)	Location N.lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
Euthynnus alletteratus (cont'd)									
"	Sept. 28	1000	34°12'	77°27'	M	--	550	5.5	Hippocampus sp. (1); Clupeidae, unidentified (56); fish remains, unidentified (21); crabs (7)
"	Sept. 29	1520	35°08'	75°18'	M	VII	605	7.5	none
"	Sept. 29	1522	35°08'	75°18'	F	VII	640	8.5	none
"	Sept. 29	1644	35°06'	75°28'	F	VII	600	7.5	none
Thunnus thynnus	Sept. 27	0840	33°09'	77°21'	M?	I	346	1.5	--
Thunnus atlanticus	Sept. 11	1815	27°41'	79°53'	F	I	529	7.5	Etrumeus sadina (8); squid remains; stomatopod (1); decapod (1)
"	Sept. 12	0655	28°13'	79°23'	M	I	460	4.5	fish remains, unidentified
"	Sept. 21	1830	31°33'	79°35'	M	V	640	13.2	none
Thunnus albacares	Sept. 12	0645	28°12'	79°22'	M	I	748	17.0	fish remains, unidentified; shrimp
"	Sept. 12	0650	28°12'	79°23'	M	IV	690	14.5	fish remains, unidentified; shrimp
Scomberomorus cavalla	Aug. 28	1335	28°36'	80°17'	F	IV-V	740	7.5	none
Scomberomorus regalis	Sept. 4	1030	25°29'	77°36'	F	VII-I	530	3.0	fish remains, unidentified

Table 14.--Numbers and species of fish taken by trolling (cont'd)

Species	Date (1954)	Time (EST)	Location N.lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
Coryphaena hippurus	Aug. 28	0630	29°40'	80°40'	F	I-II	542	3.0	none
"	Aug. 28	0800	29°27'	80°35'	F	I-II	516	3.0	Balistes capriscus (1)
"	Sept. 10	1040	25°26'	77°32'	M	I	812	10.0	none
"	Sept. 14	1815	30°22'	79°40'	F	II	645	5.0	Aluteridae, unidentified; fish remains, unidentified
"	Sept. 29	1410	35°05'	75°07'	F	I-II	758	11.0	none
"	Oct. 1	0835	32°21'	79°51'	M	I	724	11.0	fish remains, unidentified
Seriola dumerili	Sept. 28	0600	33°54'	77°09'	F	--	830	17.5	none
"	Sept. 28	0601	33°54'	77°09'	M	VI	800	15.0	none
"	Sept. 30	1335	34°11'	77°06'	M	--	762	15.0	none
Caranx crysos	Sept. 11	1050	27°00'	80°01'	F	I	390	2.0	fish remains, unidentified; squid

Table 15.--Numbers and species of fish taken by dip net

Species	Location of capture, number and size range (in standard length) of specimens
CLUPEIDAE	
Unidentified	-Reg. 39, (3) 24-25 mm.
Opisthonema oglinum	-Reg. 12, (1) 148 mm.
ECHELIDAE	
Myrophis platyrhynchus	-Settlement Point, Grand Bahama I., 26°54'N., 79°07'W., 8/29/54, 1900-2200, (2) 166-183 mm.
Ahlia egmontis	-Settlement Point, (2) 251-326 mm.
SYNODONTIDAE	
Trachinocephalus myops	-Settlement Point, (4) 34-35 mm.
Synodus sp.	-Settlement Point, (1) 23 mm.
BELONIDAE	
Strongylura ardeola	-Settlement Point, (4) 213-257 mm. Reg. 8, (1) 34 mm. Reg. 18, (1) 19 mm.
Strongylura longleyi	-Settlement Point, (1) 256 mm.
Strongylura acus	-Reg. 7, (2) 173-190 mm. Reg. 14, (1) 133 mm. Reg. 28, (1) 91 mm. Reg. 50, (1) 360 mm.
Strongylura raphidoma	-Reg. 28, (1) 445 mm.
Ablennes hians	-Settlement Point, (2) 99-325 mm. Reg. 36, (2) 405-420 mm.
MYCTOPHIDAE	
Hygophum benoiti ?	-Reg. 48, (1) 18.5 mm.
Myctophum nitidulum	-Spc. 9, (2) 21-22 mm. Reg. 6, (5) 15.5-22 mm. Reg. 28, (20) 20.5-32 mm. Reg. 29 to Reg. 30, (2) 22.5-23 mm. /1 Reg. 50, (5) 25-36 mm.
Myctophum affine	-Reg. 63, (33) 19-41 mm.
Myctophum obtusirostris	-Reg. 63, (1) 26 mm.
HEMIRAMPHIDAE	
Hemiramphus brasiliensis	-Settlement Point, (7) 71-180 mm. Reg. 12, (1) 156 mm. Reg. 20, (1) 57 mm. Reg. 50, (1) 168 mm. Reg. 55, (1) 106 mm. Reg. 71, (2) 32-42 mm.

/1 Exact position unknown.

Table 15.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range (in standard length) of specimens
HEMIRAMPHIDAE (cont'd)	
Hemiramphus balao	-Settlement Point, (7) 26-173 mm. Reg. 7, (1) 88 mm. Reg. 21, (1) 33 mm. Reg. 33, (1) 30.5 mm. Reg. 36, (2) 54.5-61.5 mm. Reg. 50, (1) 80.5 mm. Reg. 55, (1) 79 mm. Reg. 73, (2) 36-52 mm. Reg. 74, (1) 67.5 mm. Reg. 76, (1) 93.5 mm. Reg. 80, (2) 31-36.5 mm.
Hyporhamphus unifasciatus	-Reg. 22, (2) 52-85.5 mm.
EXOCOETIDAE	
Parexocoetus brachypterus	-Settlement Point, (9) 16-48.5 mm. Spc. 9, (2) 61-69.5 mm. Reg. 13, (1) 20.5 mm. Reg. 21, (8) 22.5-41.5 mm. Reg. 22, (1) 26 mm. Reg. 35, (1) 34.5 mm. Reg. 36, (5) 39-47 mm. Reg. 39, (2) 48-107 mm. Reg. 55, (1) 95 mm. Reg. 73, (1) 26.5 mm. Reg. 74, (4) 99-120 mm. Reg. 76, (1) 59 mm.
Cypselurus cyanopterus	-Reg. 29 to Reg. 30, (1) 38.5 mm. /1
Cypselurus comatus	-Reg. 7, (1) 28 mm.
Cypselurus heterurus	-Settlement Point, (2) 18.5-20 mm. Spc. 9, (1) 25.5 mm. Reg. 48, (1) 204 mm. Reg. 72, (2) 101-115 mm. Reg. 74, (3) 97-119 mm.
Prognichthys gibbifrons	-Settlement Point, (1) 14 mm. Reg. 8, (1) 18 mm. Reg. 18, (1) 13 mm. Reg. 39, (1) 52 mm. Reg. 71, (1) 18.5 mm. Reg. 80, (1) 16 mm.
HOLOCENTRIDAE	
Holocentrus vexillarius	-Settlement Point, (2) 31.5-35 mm. Reg. 28, (1) 18.5 mm. Reg. 63, (11) 21-30 mm.

/1 Exact position unknown.

Table 15.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range (in standard length) of specimens
SYNGNATHIDAE	
Syngnathus pelagicus	-Reg. 20, (1) 73 mm.
ATHERINIDAE	
Allanetta harringtonensis	-Settlement Point, (33) 35.5-68.5 mm. Reg. 21, (1) 20 mm.
MUGILIDAE	
Mugil curema	-Reg. 8, (1) 11.8 mm. Reg. 18, (1) 7.7 mm.
SCOMBRIDAE	
Unidentified	-Settlement Point, (8) 8.5-10 mm.
ISTIOPHORIDAE	
Unidentified	-Settlement Point, (3) 34.5-45 mm.
Istiophorus americanus	-Reg. 18, (1) 13 mm.
XIPHIIDAE	
Xiphias gladius	-Reg. 18, (2) 40.5-81.5 mm.
CORYPHAENIDAE	
Coryphaena hippurus	-Settlement Point, (10) 23-33.5 mm. Reg. 18, (1) 13.5 mm. Reg. 29 to Reg. 30, (1) 31.5 mm./1 Reg. 39, (1) 54.5 mm. Reg. 63, (2) 67-78 mm. Reg. 64, (1) 91.5 mm. Reg. 65, (1) 48 mm. Reg. 71, (2) ? -476 mm. Reg. 76, (2) 43.5-47.5 mm.
STROMATEIDAE	
Peprilus alepidotus	-Reg. 54, (1) 19.5 mm.
CARANGIDAE	
Seriola falcata	-Settlement Point, (1) 15.6 mm. Reg. 54, (1) 18.8 mm. Reg. 55, (2) 47.5-77 mm. Reg. 80, (1) 17.1 mm.
Seriola dumerili	-Reg. 18, (1) 13.2 mm.
Elagatis bipinnulatus	-Reg. 18, (6) 13-21 mm. Reg. 55, (1) 59 mm. Reg. 65, (4) 26-33 mm. Reg. 74, (1) 16 mm. Reg. 80, (1) 31 mm.

/1 Exact position unknown.

Table 15.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range (in standard length) of specimens
CARANGIDAE (cont'd)	
Decapterus punctatus	-Reg. 48, (1) 48 mm. Reg. 54, (30) 11.5-21.5 mm. Reg. 57, (1) 19.5 mm. Reg. 63, (1) 43.5 mm. Reg. 67, (3) 20-27 mm. Reg. 71, (1) 39 mm.
Trachinotus carolinus	-Reg. 47, (1) 11.0 mm.
Caranx crysos	-Settlement Point, (18) 24.5-70.5 mm. Reg. 8, (1) 20.7 mm. Reg. 18, (1) 12.2 mm. Reg. 28, (1) 19.6 mm. Reg. 29 to Reg. 30, (1) 15.6 mm. /1 Reg. 65, (7) 71-82 mm. Reg. 71, (1) 82.5 mm. Reg. 77, (2) 76-83 mm.
Caranx ruber	-Settlement Point, (25) 25-49.5 mm. Reg. 8, (1) 19.8 mm. Reg. 27, (3) 23-29 mm. Reg. 63, (1) 19.9 mm. Reg. 64, (1) 94 mm. Reg. 65, (1) 41.5 mm. Reg. 80, (3) 26-30 mm.
Caranx bartholomaei	-Reg. 6, (1) 14.3 mm. Reg. 18, (1) 18.5 mm. Reg. 27, (1) 19 mm.
Caranx latus	-Settlement Point, (5) 31.9-39.6 mm. Reg. 29 to Reg. 30, (1) 21.8 mm. /1
Alectis crinitus	-Reg. 20, (1) 14 mm.
Chloroscombrus chrysurus	-Reg. 54, (2) 18.5-19 mm.
PRIACANTHIDAE	
Pseudopriacanthus altus	-Reg. 54, (1) 16.5 mm.
LUTIANIDAE	
Lutianus sp.	-Settlement Point, (3) 13-14 mm.
KYPHOSIDAE	
Kyphosus sectatrix	-Settlement Point, (1) 15.4 mm. Reg. 18, (1) 33.3 mm. Reg. 65, (1) 12.7 mm. Reg. 80, (2) 11.3-13.2 mm.
Kyphosus incisor	-Reg. 65, (1) 14.3 mm. Reg. 73, (1) 34.5 mm. Reg. 78, (1) 13.5 mm. Reg. 80, (1) 15.5 mm.

/1 Exact position unknown.

Table 15.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range (in standard length) of specimens
POMACENTRIDAE	
Eupomacentrus sp. ?	-Settlement Point, (7) 10-13 mm.
Abudefduf saxatilis	-Settlement Point, (1) 12 mm. Reg. 27, (1) 13 mm. Reg. 50, (1) 15.5 mm. Reg. 55, (2) 21-26 mm. Reg. 65, (1) 13.5 mm. Reg. 71, (1) 17.5 mm. Reg. 74, (4) 16.5-24.5 mm.
ECHENEIDAE	
Phtheirichthys lineatus	-Reg. 71, (1) 89 mm.
BALISTIDAE	
Balistes capriscus	-Reg. 18, (1) 27 mm. Reg. 55, (1) 60 mm.
Canthidermis sufflamen	-Settlement Point, (2) 12.5-21.5 mm. Reg. 18, (4) 8.5-20 mm. Reg. 71, (1) 250 mm. Reg. 80, (1) 34.5 mm.
ALUTERIDAE	
Monacanthus ciliatus	-Settlement Point, (15) 13.5-21.5 mm. Reg. 48, (1) 18.5 mm. Reg. 54, (1) 24 mm. Reg. 55, (15) 15.5-21.5 mm. Reg. 67, (1) 15.5 mm. Reg. 78, (1) 18 mm.
Monacanthus tuckeri	-Settlement Point, (5) 18.5-23 mm.
Stephanolepis hispidus	-Reg. 13, (6) 22.5-30 mm. Reg. 20, (46) 7.5-15.5 mm. Reg. 21, (6) 15.5 mm. Reg. 29 to Reg. 30, (5) 14-27.5 mm. /1 Reg. 33, (6) 20.5-32 mm. Reg. 35, (2) 21.5-27.5 mm. Reg. 37, (10) 24-40 mm. Reg. 38, (7) 17.5-29 mm. Reg. 39, (29) 9-20 mm. Reg. 48, (17) 7-23.5 mm. Reg. 50, (1) 15 mm. Reg. 52, (16) 14-41 mm. Reg. 54, (121) 9.5-36 mm. Reg. 55, (41) 9-48 mm. Reg. 65, (21) 12-26 mm. Reg. 66, (3) 11-14.5 mm. Reg. 67, (11) 10-21.5 mm. Reg. 71, (6) 13-21 mm. Reg. 74, (6) 12-23.5 mm.

/1 Exact position unknown.

Table 15.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range (in standard length) of specimens
ALUTERIDAE (cont'd)	
Stephanolepis setifer	-Reg. 27, (1) 20.5 mm. Reg. 48, (1) 20 mm.
Amanses pullus	-Settlement Point, (3) 42-49 mm. Reg. 6, (1) 42.5 mm. Reg. 7, (1) 46 mm. Reg. 8, (1) 43 mm.
Alutera scripta	-Reg. 8, (1) 40.5 mm. Reg. 18, (1) 35.5 mm. Reg. 52, (1) 53 mm.
Alutera sp./2	-Reg. 48, (1) 23.5 mm.
TETRAODONTIDAE	
Sphaeroides sp.	-Settlement Point, (2) 6-8.5 mm. Reg. 47, (1) 12.5 mm. Reg. 54, (1) 14 mm.
DIODONTIDAE	
Diodon holacanthus	-Settlement Point, (2) 44-45.5 mm. Reg. 63, (1) 50 mm. Reg. 73, (1) 44 mm.
ANTENNARIIDAE	
Histrio histrio	-Settlement Point, (2) 10.5-19.5 mm. Reg. 54, (1) 11.5 mm.

/2 *Alutera punctata* Agassiz or *A. schoepfii* (Walbaum)

Table 16.--Record of drift bottles released and recovered

	Released				Recovered			
Sta.	Bottle No.	N. Lat.	W. Long.	(1954) Date	N. Lat.	W. Long.	Date	Days Adrift
3	14570	27° 00'	80° 03'	Sept. 11	29° 46.4'	81° 15.3'	Oct. 10, 1954	29
"	14572	"	"	"	29° 53'	81° 17'	Oct. 12, 1954	31
"	14574	"	"	"	"	81° 16'	Oct. 13, 1954	32
"	14575	"	"	"	29° 09'	80° 58'	Nov. 14, 1954	64
"	14578	"	"	"	29° 42.8	81° 13.7'	Dec. 14, 1954	94
"	14579	"	"	"	29° 09'	80° 58'	Nov. 15, 1954	65
"	14580	"	"	"	29° 53'	81° 17'	Oct. 12, 1954	31
4	14581	27° 20'	80° 03'	"	29° 03'	80° 54'	Nov. 18, 1954	68
5	-	27° 40'	80° 03.5'	"	No returns	-	-	-
10	14726	28° 20.5'	80° 09'	Sept. 12	55° 18'	07° 41'	July 29, 1956	686
11	14729	28° 20'	80° 33'	"	28° 20'	80° 36.5'	Sept. 15, 1954	3
"	14730	"	"	"	"	"	"	3
"	14731	"	"	"	28° 15'	80° 36.2'	Sept. 17, 1954	5
"	14732	"	"	"	28° 21'	80° 36.4'	Sept. 15, 1954	3
"	14733	"	"	"	28° 21.3'	80° 36.3'	"	3
"	14734	"	"	"	28° 20'	80° 36.5'	"	3
"	14735	"	"	"	28° 25'	80° 37'	Sept. 26, 1954	14
"	14736	"	"	"	28° 21.4'	80° 36.3'	Sept. 15, 1954	3
"	14737	"	"	"	28° 20'	80° 36.5'	"	3
"	14738	"	"	"	"	"	"	3
"	14739	"	"	"	28° 21'	80° 36.4'	"	3
"	14740	"	"	"	28° 20'	80° 36.5'	"	3
12	14741	28° 41'	80° 25'	"	30° 17'	81° 23.3'	Oct. 12, 1954	30
"	14743	"	"	"	30° 15.2'	81° 22.9'	Oct. 11, 1954	29
"	14744	"	"	"	30° 17'	81° 23.3'	Oct. 12, 1954	30
"	14745	"	"	"	"	"	Oct. 10, 1954	28
"	14746	"	"	"	"	"	Oct. 12, 1954	30
"	14747	"	"	"	30° 20'	81° 23.7'	"	30
"	14748	"	"	"	30° 17'	81° 23.3'	Oct. 14, 1954	32
"	14749	"	"	"	"	"	Oct. 8, 1954	26
"	14750	"	"	"	"	"	Oct. 10, 1954	28
"	14751	"	"	"	"	"	Oct. 11, 1954	29
13	14753	29° 00'	80° 32'	"	30° 15.2'	81° 22.9'	"	29
"	14754	"	"	"	30° 22.3'	81° 23.9'	Oct. 13, 1954	31
"	14756	"	"	"	30° 22.7'	81° 23.8'	Oct. 9, 1954	27
"	14757	"	"	"	30° 24'	81° 24'	Aug. 3, 1957	1056
"	14758	"	"	"	30° 17'	81° 23.3'	Oct. 11, 1954	29
"	14759	"	"	"	30° 22.8'	81° 23.9'	Oct. 17, 1954	35
"	14761	"	"	"	30° 15.2'	81° 22.9'	Oct. 11, 1954	29
"	14762	"	"	"	30° 17'	81° 23.3'	"	29
"	14764	"	"	"	30° 23.7'	81° 23.6'	Oct. 6, 1954	24
19	-	29° 40'	80° 23'	Sept. 13	No returns	-	-	-
20	14777	29° 39.5'	80° 45'	"	29° 14'	81° 00'	Oct. 25, 1954	42
"	14778	"	"	"	29° 13.5'	81° 00.5'	"	42

Table 16.--Record of drift bottles released and recovered (cont'd)

Sta.	Bottle No.	Released N. Lat.	Released W. Long.	Released (1954) Date	Recovered N. Lat.	Recovered W. Long.	Recovered Date	Days Adrift
20	14779	29° 39.5'	80° 45'	Sept. 13	29° 20'	81° 03.5'	Oct. 25, 1954	42
"	14780	"	"	"	29° 11'	80° 59'	Oct. 29, 1954	46
"	14781	"	"	"	29° 13.1'	81° 00.2'	Oct. 25, 1954	42
"	14782	"	"	"	"	"	"	42
"	14783	"	"	"	29° 17'	81° 02.1'	Oct. 23, 1954	40
"	14784	"	"	"	29° 13'	81° 00'	Oct. 25, 1954	42
"	14785	"	"	"	29° 15'	81° 01.1'	Oct. 24, 1954	41
"	14786	"	"	"	29° 17.5'	81° 02.3'	"	41
"	14787	"	"	"	29° 16'	81° 01.5'	"	41
"	14788	"	"	"	29° 14.1'	81° 00.7'	"	41
21	14789	29° 40'	81° 07.5'	Sept. 14	29° 17'	81° 02'	Dec. 7, 1954	84
"	14790	"	"	"	30° 14.2'	81° 22.6'	Sept. 18, 1954	4
"	14792	"	"	"	29° 54'	81° 19'	Oct. 18, 1954	34
"	14793	"	"	"	29° 52.5'	81° 16.6'	Dec. 9, 1954	86
"	14794	"	"	"	29° 53'	81° 17'	Oct. 31, 1955	412
"	14795	"	"	"	30° 00'	81° 19'	Sept. 18, 1954	4
"	14796	"	"	"	29° 54.5'	81° 18.5'	Feb. 13, 1955	152
"	14797	"	"	"	29° 56'	81° 17.8'	Jan., 1955	108
"	14798	"	"	"	30° 30'	81° 25.8'	Oct. 4, 1954	20
"	14799	"	"	"	29° 55'	81° 17.5'	Oct. 14, 1958	1491
22	14802	30° 00'	81° 14'	"	30° 17'	81° 23.3'	Sept. 18, 1954	4
"	14803	"	"	"	"	"	Sept. 17, 1954	3
"	14805	"	"	"	"	"	"	3
"	14806	"	"	"	30° 22.3'	81° 23.9'	Sept. 18, 1954	4
"	14807	"	"	"	30° 17'	81° 23.3'	Sept. 16, 1954	2
"	14808	"	"	"	"	"	Sept. 18, 1954	4
"	14809	"	"	"	30° 18.5'	81° 23.6'	Sept. 17, 1954	3
"	14810	"	"	"	30° 17'	81° 23.3'	"	3
"	14811	"	"	"	"	"	"	3
"	14812	"	"	"	"	"	Sept. 18, 1954	4
23	14813	30° 20'	81° 20'	"	30° 30'	81° 25.8'	Sept. 26, 1954	12
"	14815	"	"	"	"	"	"	12
"	14817	"	"	"	"	"	"	12
"	14818	"	"	"	30° 41'	81° 26'	Oct. 5, 1954	21
"	14819	"	"	"	30° 30'	81° 25.8'	Sept. 28, 1954	14
"	14820	"	"	"	"	"	Sept. 27, 1954	13
"	14821	"	"	"	30° 47.7'	81° 27.2'	Oct. 9, 1954	25
"	14822	"	"	"	30° 30'	81° 25.8'	Sept. 27, 1954	13
"	14824	"	"	"	30° 39'	81° 26'	Oct. 1, 1954	17
24	14825	30° 20.5'	80° 58'	"	29° 40'	81° 13'	Nov. 5, 1954	52
"	14826	"	"	"	29° 02'	80° 58'	Nov. 15, 1954	62
"	14827	"	"	"	29° 17'	81° 02.1'	Oct. 24, 1954	40
"	14829	"	"	"	29° 28'	81° 07'	Oct. 25, 1954	41
"	14830	"	"	"	29° 17'	81° 02'	Dec. 7, 1954	84

Table 16.--Record of drift bottles released and recovered (cont'd)

Released					Recovered			
Sta.	Bottle No.	N. Lat.	W. Long.	(1954) Date	N. Lat.	W. Long.	Date	Days Adrift
24	14831	30° 20.5'	80° 58'	Sept. 14	29° 17'	81° 02'	Oct. 24, 1954	40
"	14832	"	"	"	29° 02'	80° 53.5'	Nov. 15, 1954	62
"	14834	"	"	"	29° 28'	81° 07.2'	Oct. 24, 1954	40
"	14835	"	"	"	29° 25.5'	81° 06.1'	Oct. 24, 1954	40
25	14837	30° 20'	80° 35'	"	29° 11'	80° 59'	Nov. 13, 1954	60
"	14838	"	"	"	29° 06'	80° 56'	Nov. 14, 1954	61
"	14839	"	"	"	29° 09'	80° 58'	"	61
"	14843	"	"	"	29° 16'	81° 01'	"	61
"	14845	"	"	"	"	"	"	61
"	14847	"	"	"	29° 01'	80° 53'	Jan. 30, 1955	138
33	14861	31° 00'	80° 46.5'	Sept. 15	29° 09'	80° 58'	Nov. 14, 1954	60
"	14862	"	"	"	30° 14'	80° 23'	Nov. 1, 1954	47
"	14863	"	"	"	29° 04'	80° 55'	Nov. 21, 1954	67
"	14864	"	"	"	29° 02'	80° 53'	Nov. 14, 1954	60
"	14866	"	"	"	29° 00'	80° 52'	Nov. 15, 1954	61
"	14867	"	"	"	29° 50'	81° 16'	Nov. 11, 1954	57
"	14869	"	"	"	29° 12.7'	81° 00'	Dec. 8, 1954	84
"	14870	"	"	"	29° 54.6'	81° 17.5'	"	84
"	14871	"	"	"	29° 04'	80° 55'	Nov. 15, 1954	61
34	14875	"	81° 09'	"	30° 50'	81° 26'	Oct. 4, 1954	19
"	14876	"	"	"	30° 48'	81° 27.2'	Oct. 3, 1954	18
"	14877	"	"	"	30° 55'	81° 24'	Nov. 3, 1954	49
"	14878	"	"	"	"	81° 24.3'	Sept. 30, 1954	15
35	14885	31° 20.5'	80° 53'	Sept. 20	28° 59'	80° 52'	Nov. 18, 1954	59
"	14886	"	"	"	29° 02'	80° 53'	Nov. 12, 1954	53
"	14888	"	"	"	29° 00.2'	80° 52.2'	Nov. 17, 1954	58
"	14890	"	"	"	29° 18'	81° 03'	"	58
"	14891	"	"	"	29° 55'	81° 17.5'	Oct. 25, 1954	35
"	14893	"	"	"	29° 28'	81° 07.3'	Dec. 21, 1954	92
"	14894	"	"	"	29° 02'	80° 53.5'	Nov. 15, 1954	56
"	14896	"	"	"	29° 44.5'	81° 17.5'	Dec. 8, 1954	79
36	14897	31° 41.5'	80° 36'	"	29° 02'	80° 53.5'	Nov. 15, 1954	56
"	14900	"	"	"	29° 04'	80° 54.6'	Dec. 7, 1954	78
"	14903	"	"	"	29° 02'	80° 53.5'	Nov. 15, 1954	56
37	14917	31° 40'	80° 20'	Sept. 21	29° 12'	81° 00'	Nov. 14, 1954	54
"	14919	"	"	"	29° 11'	80° 59'	"	54
38	-	31° 36'	79° 51'	"	No returns	-	-	-
43	-	32° 18'	79° 21'	Sept. 22	" "	-	-	-
44	-	32° 34'	79° 35'	"	" "	-	-	-
45	14959	32° 40'	79° 32'	Sept. 25	32° 45.5'	79° 50.6'	Oct. 3, 1954	8
"	14960	"	"	"	32° 45.4'	79° 50.9'	"	8
"	14966	"	"	"	"	"	"	8
46	-	32° 54'	79° 16'	"	No returns	-	-	-
47	-	32° 40.5'	79° 00'	"	" "	-	-	-

Table 16.--Record of drift bottles released and recovered (cont'd)

Released					Recovered			
Sta.	Bottle No.	N. Lat.	W. Long.	(1954) Date	N. Lat.	W. Long.	Date	Days Adrift
54	-	33° 03'	78° 21'	Sept. 26	No returns	-	-	-
55	-	33° 17'	78° 38'	"	" "	-	-	-
56	15017	33° 32'	78° 55'	"	33° 39.2'	78° 55.3'	Sept. 30, 1954	4
"	15018	"	"	"	33° 33.8'	79° 00.5'	Oct. 1, 1954	5
"	15019	"	"	"	33° 35.3'	78° 59.2'	"	5
"	15020	"	"	"	"	"	"	5
"	15021	"	"	"	"	"	"	5
"	15022	"	"	"	"	"	"	5
"	15023	"	"	"	33° 39.2'	78° 55.3'	Sept. 30, 1954	4
"	15024	"	"	"	33° 35.3'	78° 59.2'	Oct. 1, 1954	5
"	15025	"	"	"	"	"	"	5
"	15026	"	"	"	"	"	Oct. 30, 1954	4
"	15027	"	"	"	"	"	Oct. 1, 1954	5
"	15028	"	"	"	33° 39.2'	78° 55.3'	Sept. 30, 1954	4
57	15029	33° 34'	78° 25'	Sept. 27	33° 54.7'	78° 08'	Oct. 8, 1954	11
"	15035	"	"	"	"	"	Oct. 6, 1954	9
58	15043	33° 36'	77° 55'	"	33° 56.9'	77° 59.1'	Oct. 17, 1954	20
59	-	33° 21.5'	77° 37'	"	No returns	-	-	-
66	-	33° 57'	77° 11'	Sept. 28	" "	-	-	-
67	-	34° 10.5'	77° 30'	"	" "	-	-	-
68	15089	34° 22'	77° 09'	"	34° 38'	76° 31.5'	Oct. 13, 1954	15
"	15091	"	"	"	34° 37.5'	76° 31.7'	Dec. 18, 1954	81
"	15092	"	"	"	34° 39.4'	76° 34.6'	Oct. 1, 1955	368
"	15094	"	"	"	34° 38'	76° 31.5'	Oct. 13, 1954	15
"	15098	"	"	"	"	"	Oct. 7, 1954	9
"	15099	"	"	"	34° 39.5'	76° 34.6'	Mar. 20, 1955	173
"	15100	"	"	"	34° 38.9'	76° 33.2'	Oct. 7, 1954	9
69	15103	34° 31.5'	76° 49'	"	34° 40'	77° 03'	Oct. 8, 1956	741
"	15109	"	"	"	34° 42'	76° 42'	Apr. 5, 1956	555
70	-	34° 18'	76° 32'	"	No returns	-	-	-
75	-	34° 40'	75° 53'	Sept. 29	" "	-	-	-
77	-	35° 01'	75° 45'	"	" "	-	-	-
78	-	35° 08'	75° 22'	"	" "	-	-	-

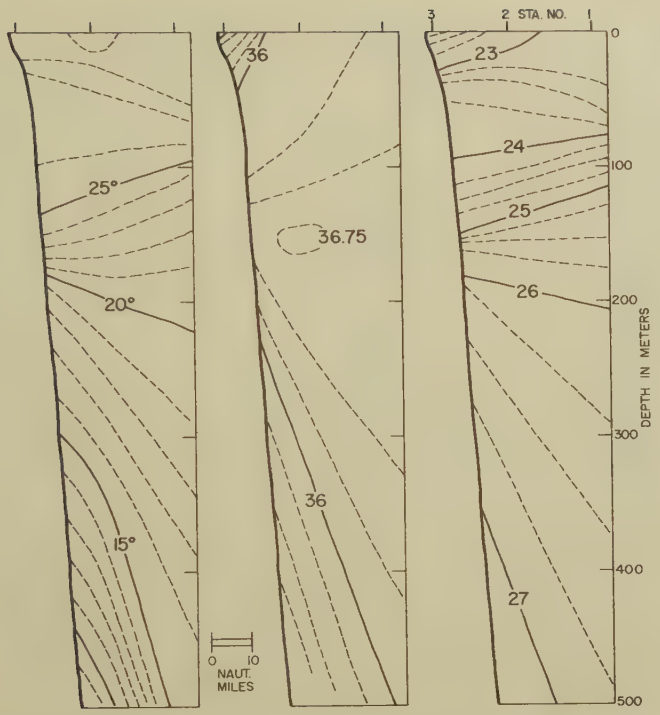

Figure 5.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 1, 2, and 3 (Jupiter Section).

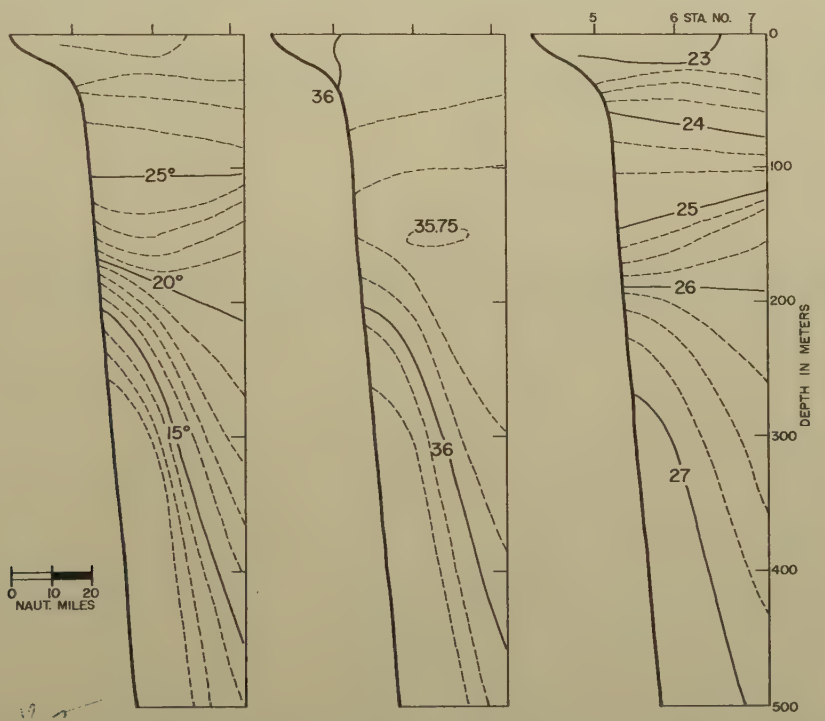

Figure 6.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 5, 6, and 7 (Vero Section).

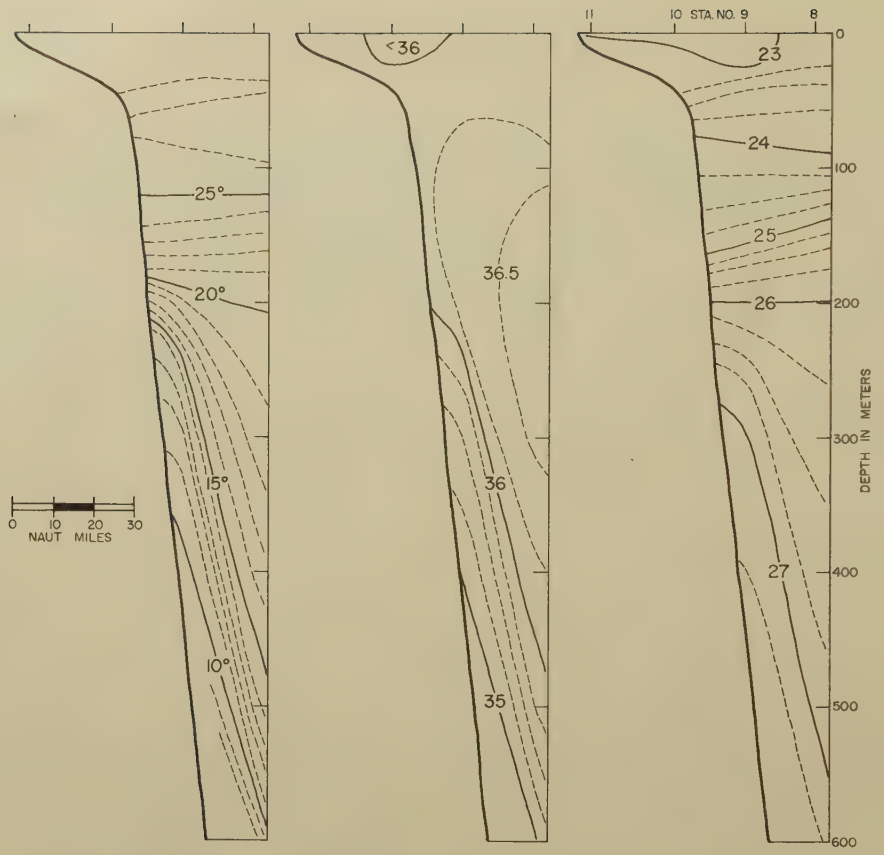

Figure 7.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 8, 9, 10, and 11 (Canaveral Section).

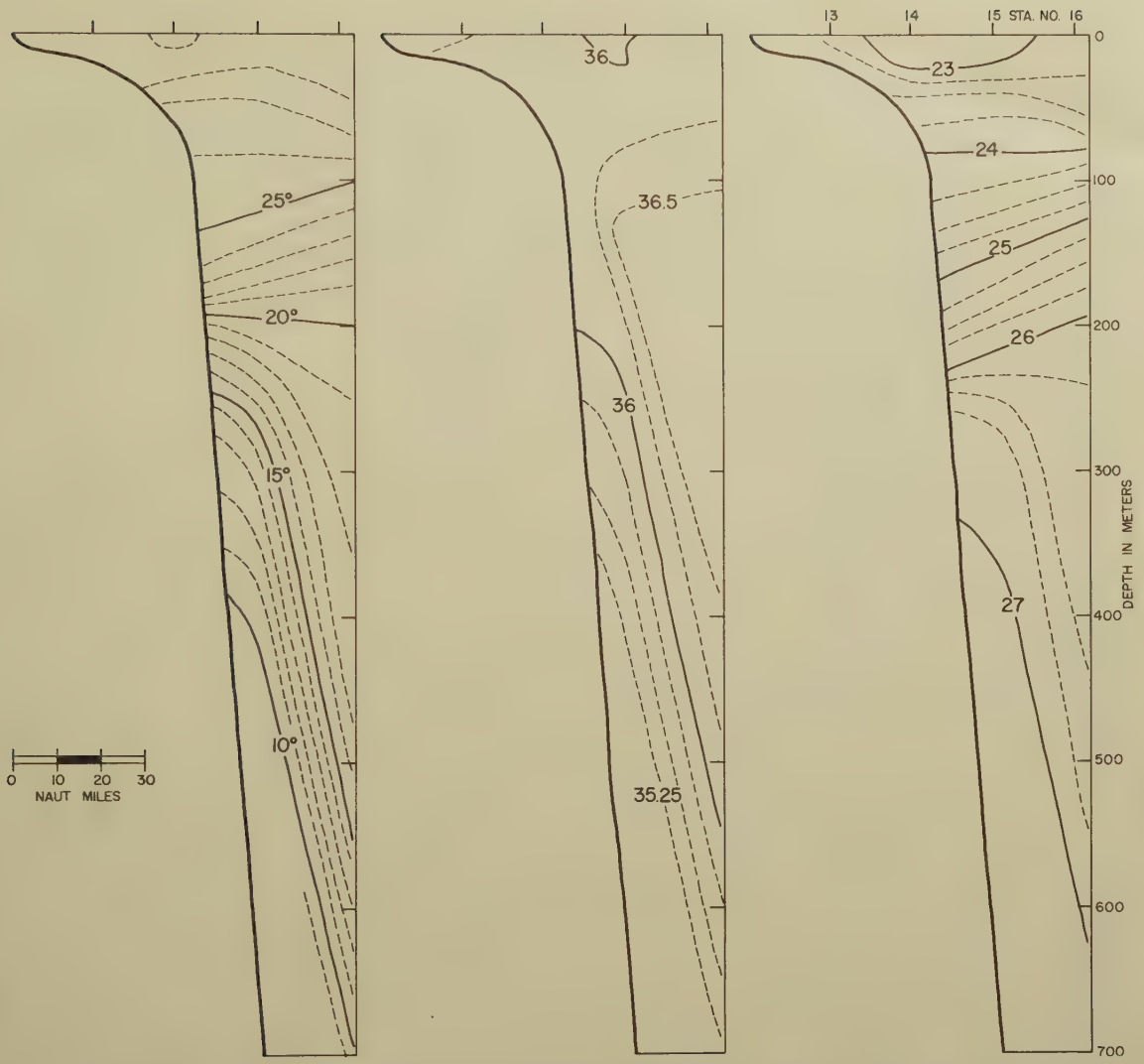

Figure 8.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 13, 14, 15, and 16 (Ponce de Leon Section).

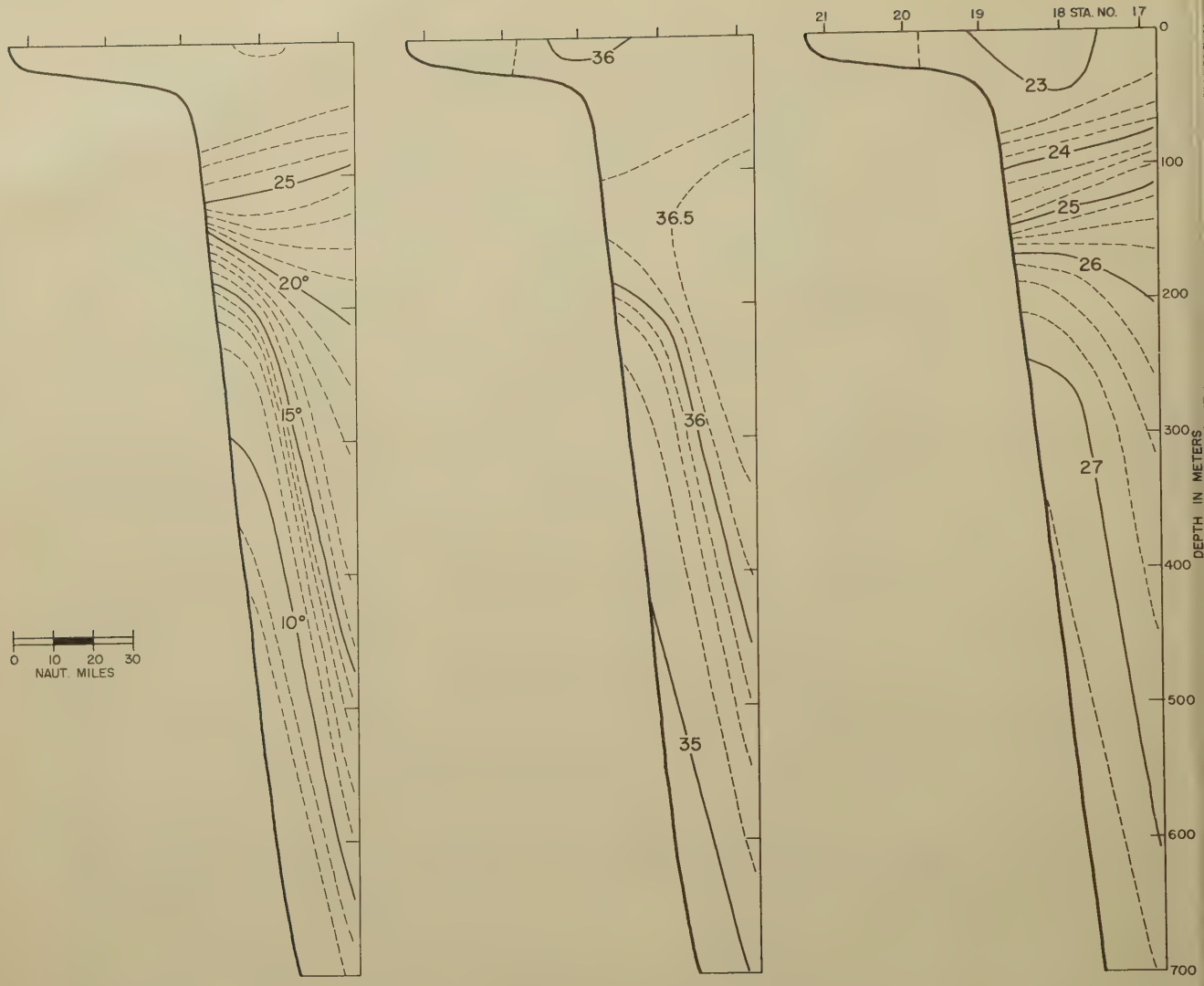

Figure 9.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 17, 18, 19, 20, and 21 (Matanzas Section).

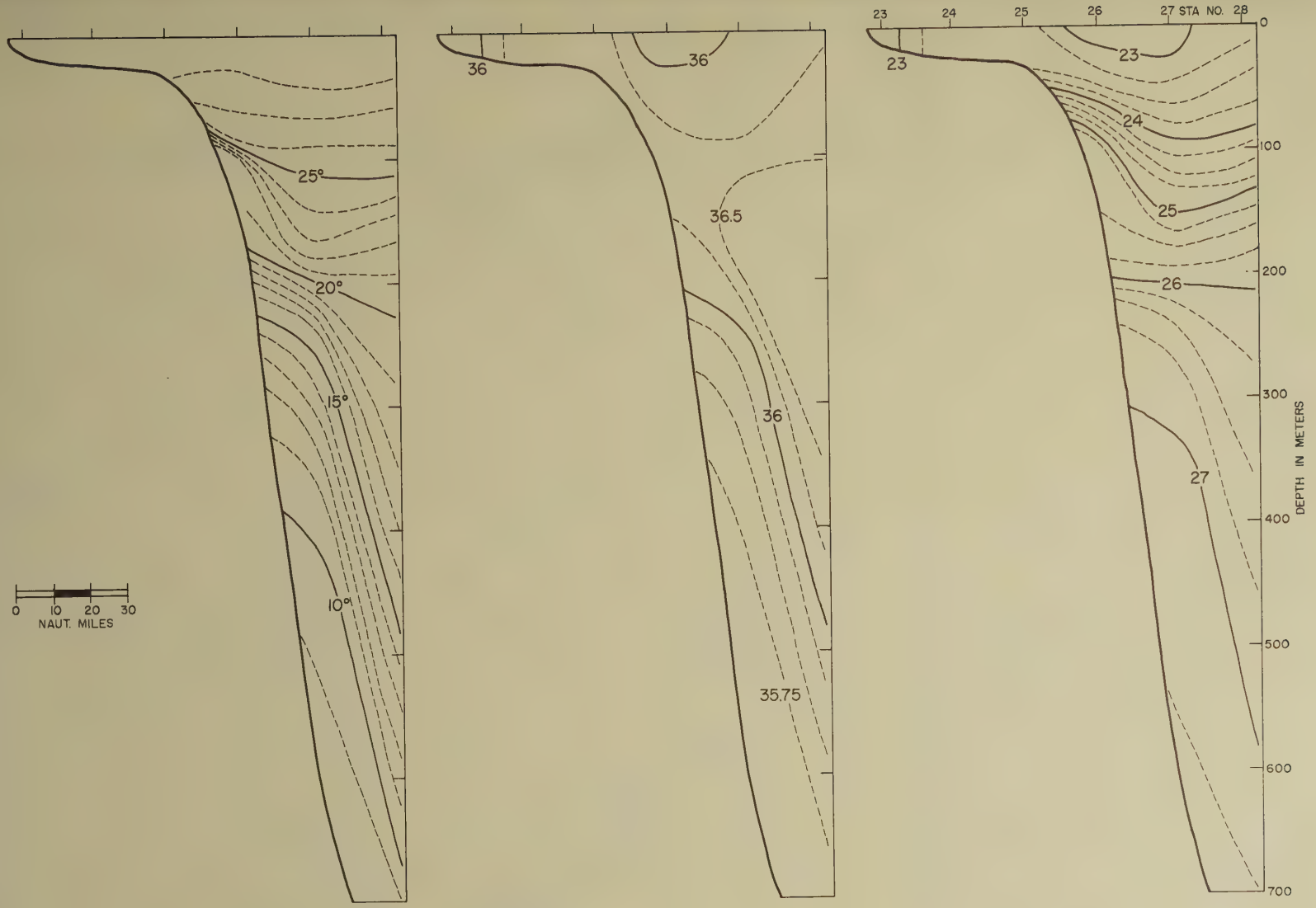

Figure 10.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 23, 24, 25, 26, 27, and 28 (Jacksonville Section).

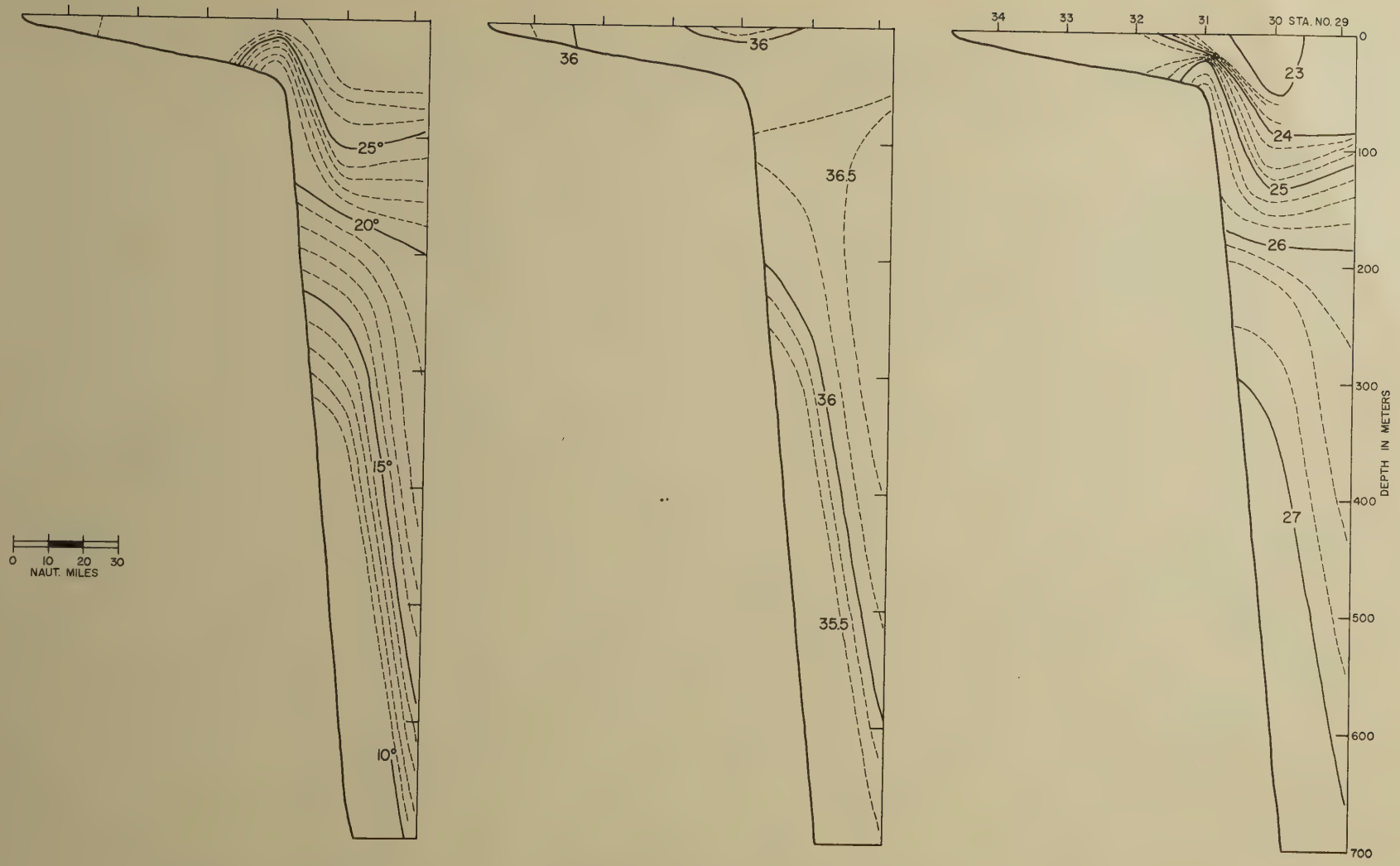

Figure 11.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 29, 30, 31, 32, 33, and 34 (Brunswick Section).

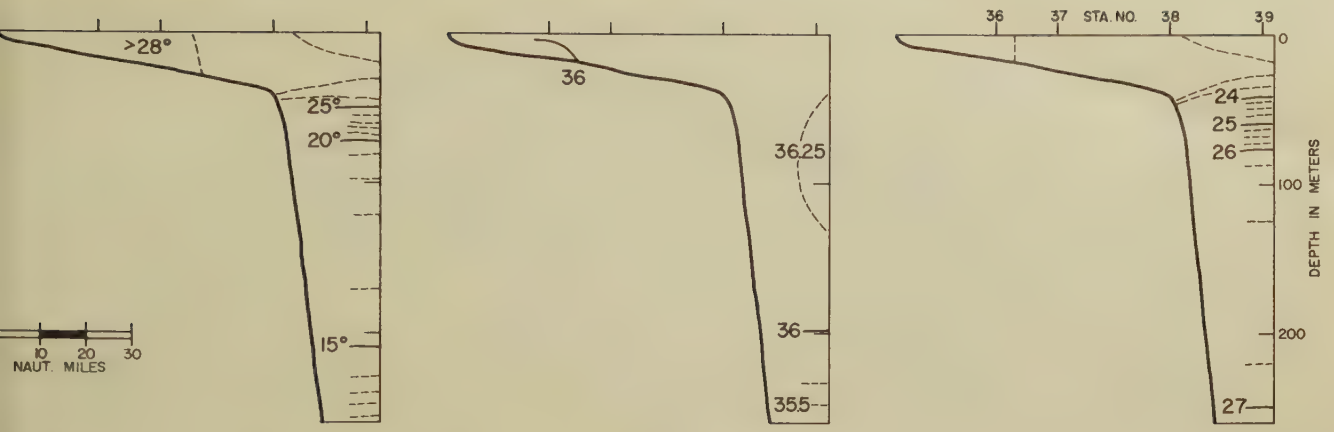

Figure 12.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 36, 37, 38, and 39 (Savannah Section).

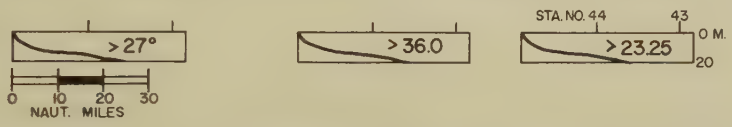

Figure 13.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 43 and 44 (Charleston Section).

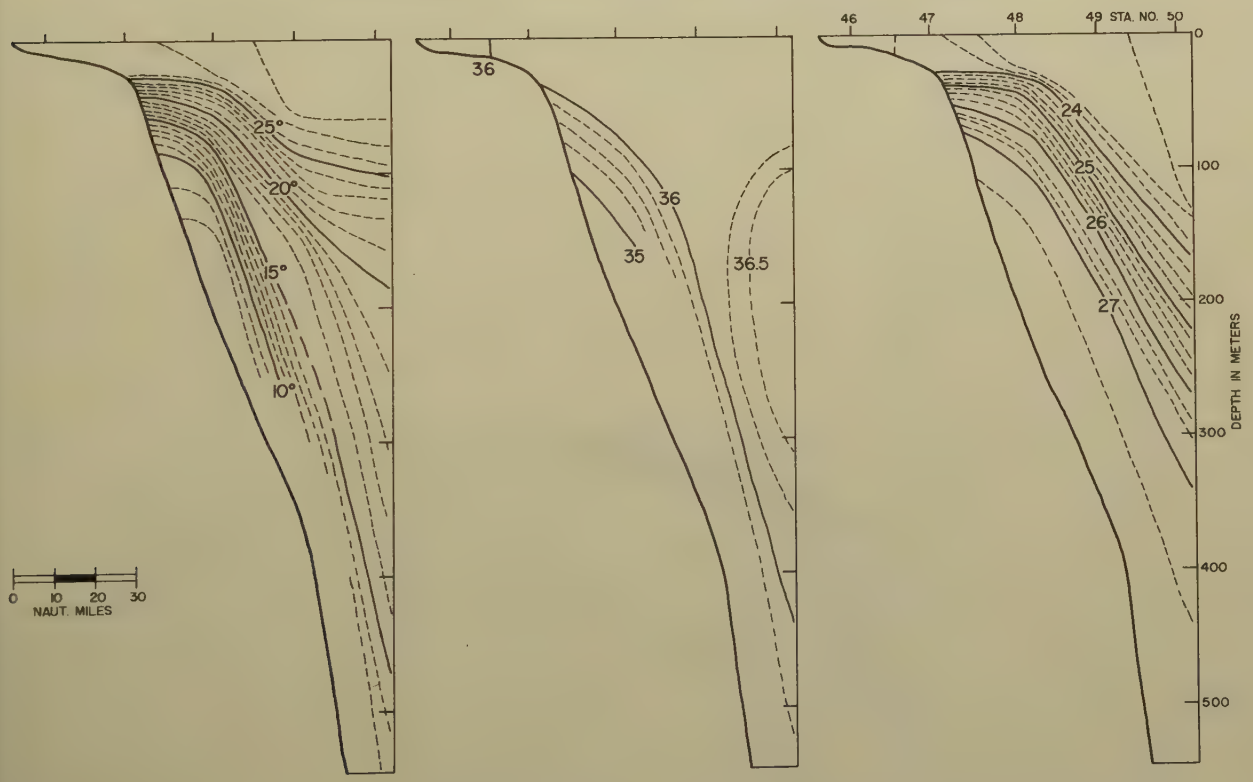

Figure 14.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 46, 47, 48, 49, and 50 (Cape Romain Section).

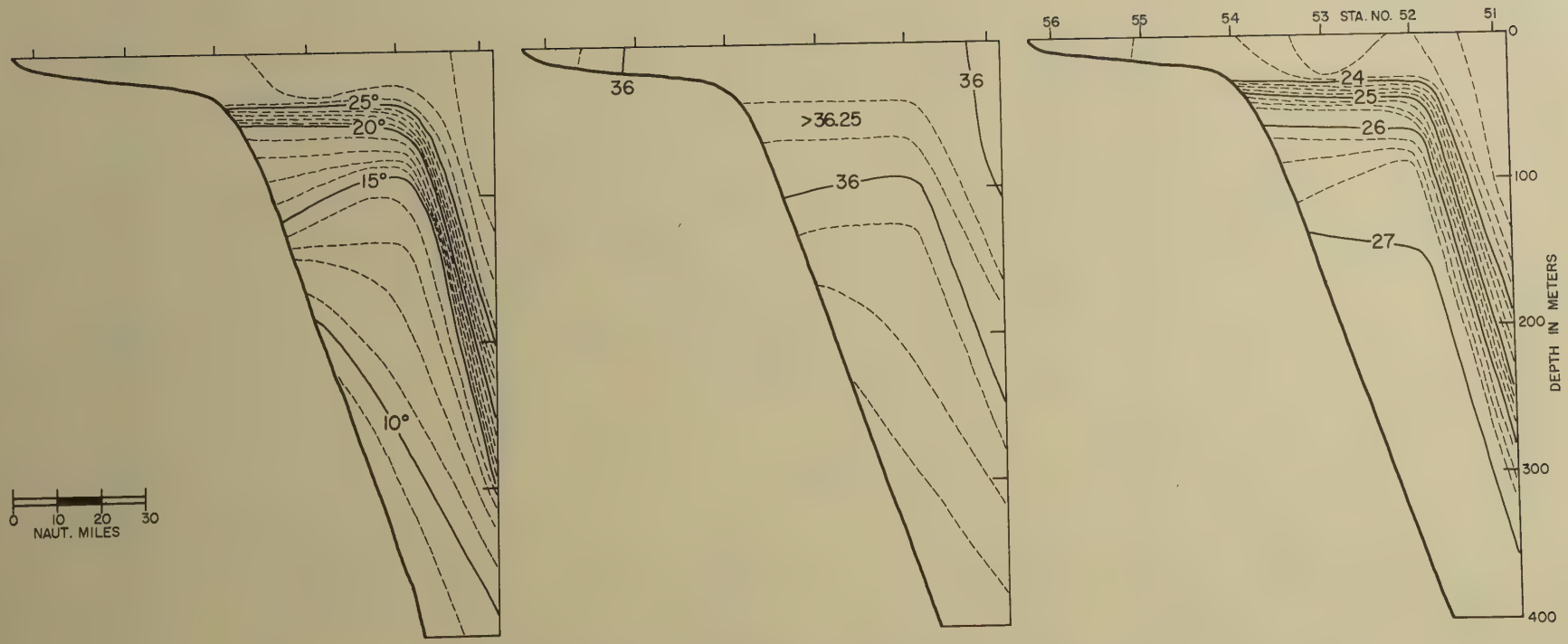

Figure 15.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 51, 52, 53, 54, 55, and 56 (Long Bay Section).

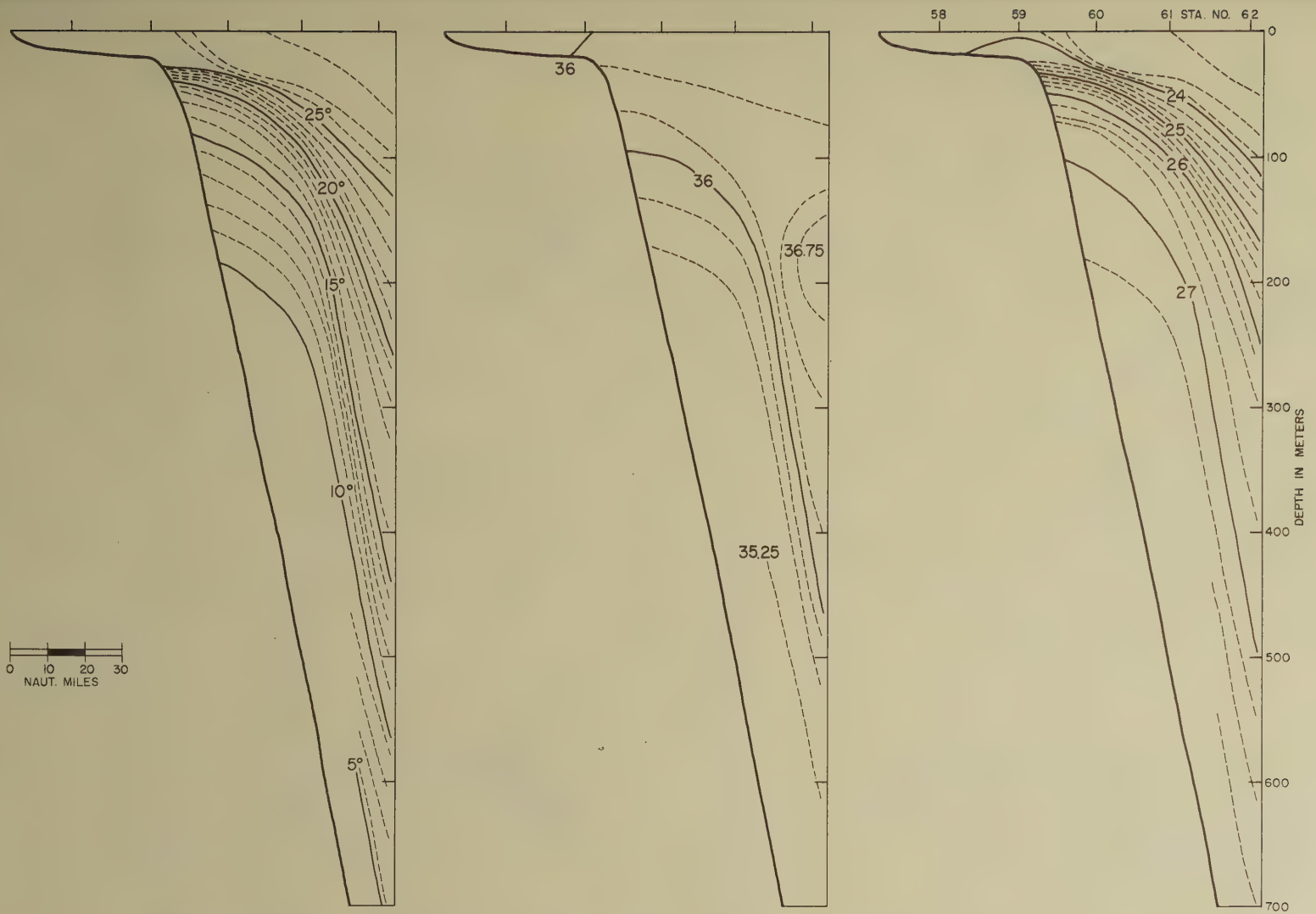

Figure 16.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 58, 59, 60, 61, and 62 (Cape Fear Section).

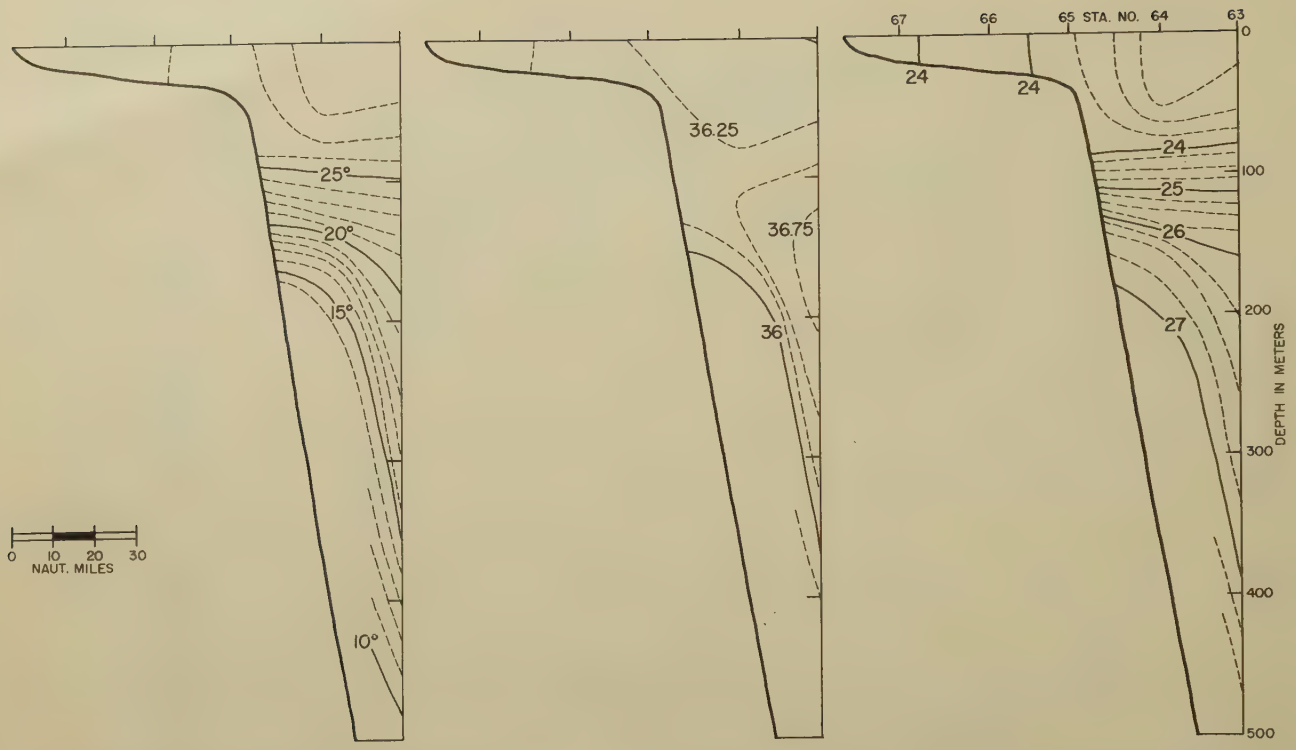

Figure 17.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 63, 64, 65, 66, and 67 (Onslow Bay Section).

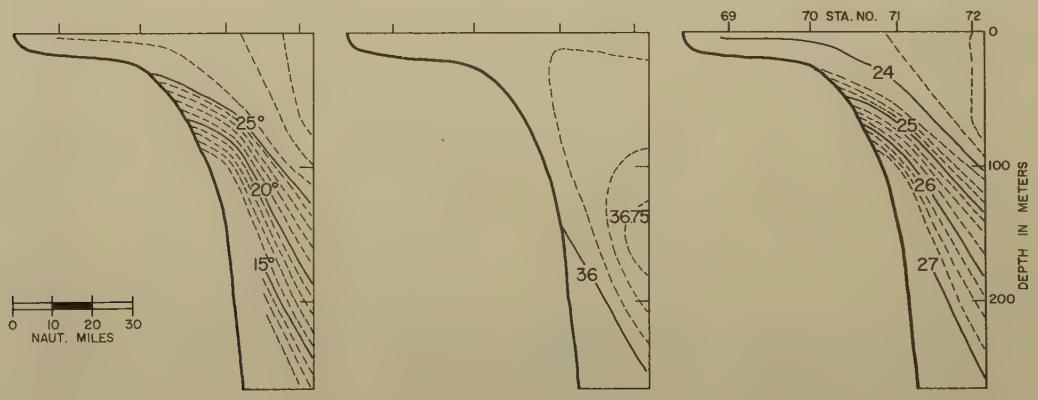

Figure 18.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 69, 70, 71, and 72 (Cape Lookout Section).

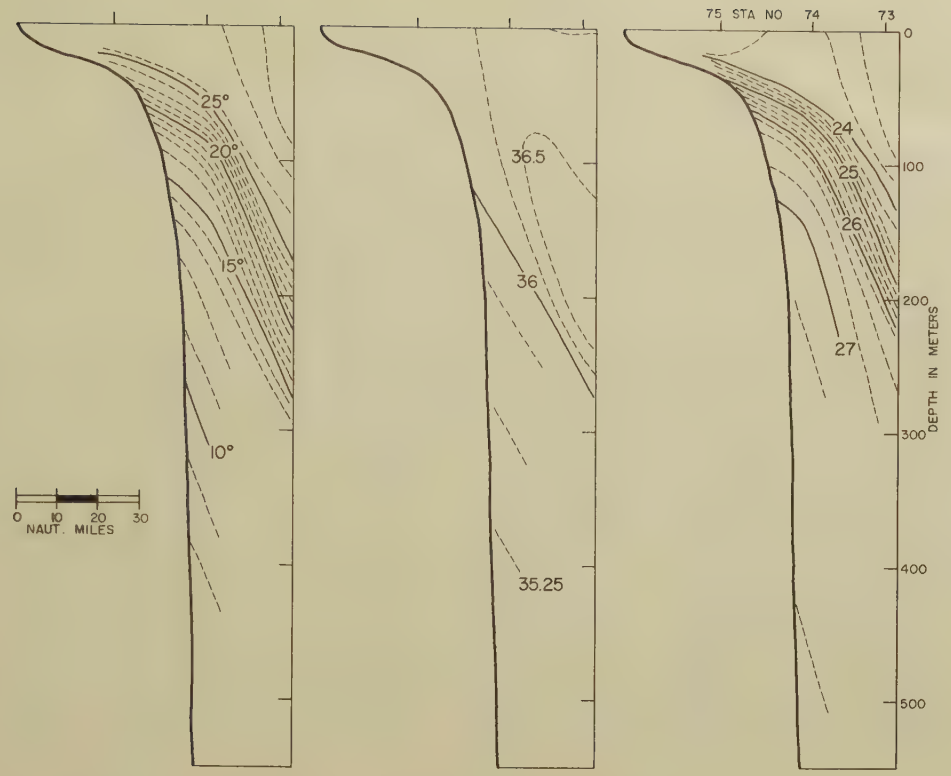

Figure 19.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 73, 74, and 75 (Raleigh Bay Section).

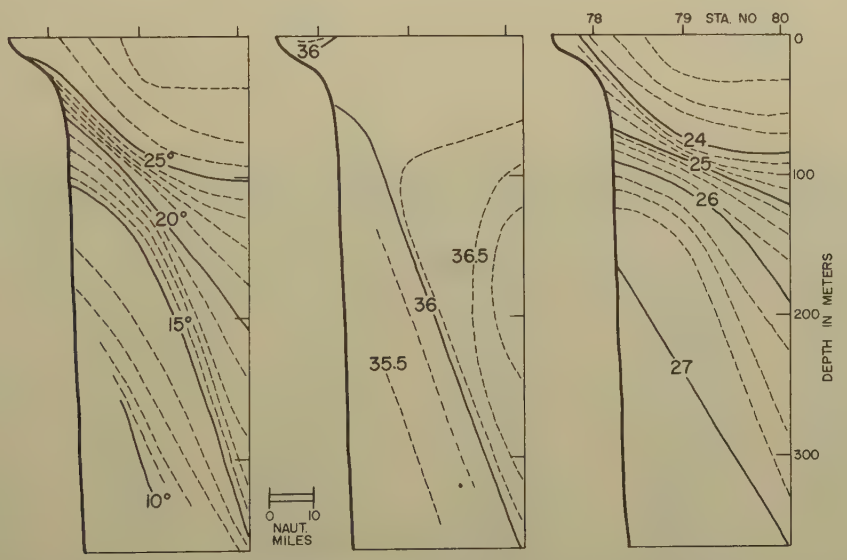

Figure 20.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 78, 79, and 80 (Hatteras Section).

STATION 1

DATE Sept. 11, 1954 LAT. 27°00'N. LONG. 79°18'W. TIME 09
DEPTH 622 WIND 5 , 25 BAR. 12 AIR TEMP: dry 28.3°C, wet 26.1°C
HUMIDITY 84% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 25 , amt. 2
SWELL: dir. 09 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.65	36.30	23.18	4.63
10	28.67	36.27	23.15	4.57
19	28.62	36.27	23.17	4.60
48	28.19	36.29	23.32	4.73*
96	25.08	36.53	24.49	4.53
145	22.34	36.65	25.39	4.82
194	20.43	36.69	25.95	4.52
292	18.87	36.56	26.26	4.41
391	16.64	36.28	26.60	3.65
491	15.16	36.00	26.72	3.57

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.65	36.30	23.18	4.63
10	28.67	36.27	23.15	4.57
20	28.62	36.27	23.17	4.60
30	28.59	36.27	23.18	4.59
50	28.05	36.30	23.38	4.56
75	26.39	36.44	24.02	4.54
100	24.83	36.54	24.58	4.53
150	22.11	36.66	25.47	4.78
200	20.35	36.69	25.97	4.50
250	19.62	36.63	26.12	4.43
300	18.66	36.54	26.30	4.38
400	16.48	36.25	26.61	3.63

STATION 1

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.1	0.7	1.0	0.0	0.0
10	1.1	0.4	0.0	3.0	-
19	0.8	0.1	0.0	-	0.4
48	0.6	-	0.0	0.6	0.0
96	1.0	0.3	-	0.0	0.8
145	0.8	0.4	0.0	0.0	1.6
194	1.0	<0.1	1.5	2.6	1.1
292	0.9	0.4	-	0.0	0.0
391	-	1.5	2.5	2.7	1.3
491	2.1	-	3.5	-	0.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.1	0.7	1.0	0.0	0.0
10	1.1	0.4	0.0	3.0	0.2
20	0.8	0.1	0.0	2.4	0.4
30	0.7	0.1	0.0	1.8	0.3
50	0.6	0.2	0.0	0.6	0.0
75	0.8	0.2	0.0	0.3	0.4
100	1.0	0.3	0.0	0.0	0.8
150	0.8	0.4	0.0	0.0	1.6
200	0.8	<0.1	1.5	2.6	1.1
250	0.9	0.2	2.0	1.3	0.5
300	0.9	0.4	2.0	0.0	0.0
400	1.5	1.5	2.5	2.7	1.3
500	2.1	-	3.5	-	0.1

STATION 2

DATE Sept. 11, 1954 LAT. 26°58'N. LONG. 79°42'W. TIME 13
DEPTH 576 WIND 3 , 25 BAR. 12 AIR TEMP: dry 28.9°C, wet 26.1°C
HUMIDITY 80% WEATHER 01 CLOUDS: type 8 , amt. 1 SEA: dir. 25 , amt. 1
SWELL: dir. 01 , amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	29.05	36.09	22.89	4.57*
10	29.05	36.09	22.89	4.53
20	28.58	36.06	23.02	4.56
50	26.81	36.15	23.67	4.52
100	25.73	36.35	24.16	4.13
150	23.06	36.76	25.27	3.74
200	19.79	36.66	26.10	4.16*
300	16.09	36.10	26.59	3.52
400	12.88	35.64	26.93	3.07
500	8.88	35.08	27.22	2.91

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	29.05	36.09	22.89	-
10	29.05	36.09	22.89	4.53
20	28.58	36.06	23.02	4.56
30	27.90	36.09	23.27	4.56
50	26.81	36.15	23.67	4.52
75	26.47	36.22	23.83	4.33
100	25.73	36.35	24.16	4.13
150	23.06	36.76	25.27	3.74
200	19.79	36.66	26.10	3.73
250	17.88	36.37	26.37	3.65
300	16.09	36.10	26.59	3.52
400	12.88	35.64	26.93	3.07
500	8.88	35.08	27.22	2.91

STATION 2

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.4	0.2	0.5	1.6	0.0
10	0.9	0.1	0.0	1.8	1.4
20	0.7	0.4	0.0	1.0	0.4
50	1.0	0.2	<0.5	0.5	1.3
100	1.6	0.2	-	1.2	0.2
150	0.9	0.4	3.5	5.3	1.3
200	1.2	0.5	3.0	0.9	0.3
300	1.0	0.7	1.0	-	1.2
400	-	1.3	10.0	-	0.0
500	2.8	2.5	5.0	-	2.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.4	0.2	0.5	1.6	0.0
10	0.9	0.1	0.0	1.8	1.4
20	0.7	0.4	0.0	1.0	0.4
30	0.8	0.3	<0.5	0.8	0.7
50	1.0	0.2	<0.5	0.5	1.3
75	1.3	0.2	1.0	0.9	0.8
100	1.6	0.2	2.0	1.2	0.2
150	0.9	0.4	3.5	5.3	1.3
200	1.2	0.5	3.0	0.9	0.3
250	1.1	0.6	2.0	-	0.8
300	1.0	0.7	1.0	-	1.2
400	1.9	1.3	10.0	-	0.0
500	2.8	2.5	5.0	-	2.1

STATION 3

DATE Sept. 11, 1954 LAT. 27°00' N. LONG. 80°03'W. TIME 14
DEPTH 14 WIND 3 , 14 BAR. 14 AIR TEMP: dry 29.4°C, wet 27.2°C
HUMIDITY 84% WEATHER 02 CLOUDS: type 8 , amt. 1 SEA: dir. 14 , amt. 1
SWELL: dir. 01 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.78	34.98	22.14	4.76
10	28.24	35.40	22.64	3.94

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.78	34.98	22.14	4.76
10	28.24	35.40	22.64	3.94

STATION 3

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.3	0.2	0.0	0.0	0.4
10	2.0	0.4	0.0	6.1	1.7

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.3	0.2	0.0	0.0	0.4
10	2.0	0.4	0.0	6.1	1.7

STATION 4

DATE Sept. 11, 1954 LAT. 27°20'N. LONG. 80°03'W. TIME 18
DEPTH 30 WIND 4 , 14 BAR. 12 AIR TEMP: dry 32.8°C, wet 28.9°C
HUMIDITY 74% WEATHER 02 CLOUDS: type 8 , amt. 1 SEA: dir. 14 , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.92	35.94	22.82	4.52
10	28.18	35.94	23.06	4.49
20	27.97	35.94	23.13	4.17

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.92	35.94	22.82	4.52
10	28.18	35.94	23.06	4.49
20	27.97	35.94	23.13	4.17

STATION 4

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.4	0.4	0.0	1.6	1.5
10	0.9	0.5	0.0	-	-
20	0.9	0.4	0.5	1.4	1.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.4	0.4	0.0	1.6	1.5
10	0.9	0.5	0.0	1.5	1.5
20	0.9	0.4	0.5	1.4	1.5

STATION 5

DATE Sept. 11, 1954 LAT. 27°40'N. LONG. 80°04'W. TIME 17
DEPTH 34 WIND 7 , 16 BAR. 10 AIR TEMP: dry 34.4°C, wet 28.9°C
HUMIDITY 66% WEATHER 02 CLOUDS: type 2 , amt. 1 SEA: dir. 16 , amt. 2
SWELL: dir. 01 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	29.24	35.98	22.74	4.59
10	28.97	36.04	22.88	4.65*
20	28.28	35.97	23.05	4.61

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	29.24	35.98	22.74	4.59
10	28.97	36.04	22.88	4.60
20	28.28	35.97	23.05	4.61

STATION 5

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.5	0.2	0.0	1.9	0.9
10	0.6	0.1	3.0	0.4	0.1
20	1.1	0.5	1.5	1.7	2.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.5	0.2	0.0	1.9	0.9
10	0.6	0.1	3.0	0.4	0.1
20	1.1	0.5	1.5	1.7	2.2

STATION 6

DATE Sept. 12, 1954 LAT. 27°41'N. LONG. 79°40'W. TIME 01
DEPTH 539 WIND 6 , 16 BAR. 13 AIR TEMP: dry 28.9°C, wet 26.7°C
HUMIDITY 84% WEATHER 03 CLOUDS: type 2 , amt. 2 SEA: dir. 16 , amt. 3
SWELL: dir. 01 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	29.19	36.13	22.87	4.49
7	29.20	36.13	22.87	4.56
14	29.13	36.13	22.89	4.56
37	27.40	36.15	23.48	4.58
74	25.93	36.34	24.09	4.14
112	24.75	36.55	24.61	3.78
151	22.95	36.76	25.30	3.58
231	16.20	36.06	26.53	3.17
321	11.46	35.44	27.05	2.91

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	29.19	36.13	22.87	4.49
10	29.20	36.13	22.87	4.56
20	28.62	36.13	23.06	4.56
30	27.86	36.14	23.32	4.57
50	26.85	36.22	23.71	4.42
75	25.91	36.35	24.10	4.13
100	25.18	36.48	24.42	3.88
150	23.01	36.76	25.28	3.59
200	18.53	36.31	26.16	3.31
250	14.95	35.91	26.70	3.10
300	12.30	35.57	26.99	2.95

STATION 6

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.0	0.0	-	1.0
7	0.5	-	0.0	0.5	1.8
14	0.5	0.2	1.0	0.0	0.0
37	1.2	0.1	0.0	1.2	2.6
74	1.2	0.0	0.5	-	0.0
112	1.3	0.3	1.0	0.2	0.6
151	0.7	0.2	0.5	-	0.0
231	1.3	0.7	3.5	0.5	0.3
321	1.7	1.8	-	0.8	1.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.0	0.0	-	1.0
10	0.5	0.2	0.5	0.3	1.1
20	0.7	0.2	0.5	0.3	0.7
30	1.0	0.2	0.5	0.8	1.9
50	1.2	0.1	<0.5	1.1	1.7
75	1.2	0.0	0.5	0.7	0.0
100	1.3	0.2	1.0	0.4	0.4
150	0.7	0.2	0.5	0.3	0.0
200	1.1	0.5	2.5	0.4	0.2
250	1.4	1.0	3.5	0.6	0.5
300	1.6	1.6	-	0.7	1.1

STATION 7

DATE Sept. 12, 1954 LAT. 27°40'N. LONG. 79°18'W. TIME 04
DEPTH 558 WIND 7 , 16 BAR. 13 AIR TEMP: dry 28.3°C, wet 26.1°C
HUMIDITY 84% WEATHER 03 CLOUDS: type 2 , amt. 3 SEA: dir. 17 , amt. 3
SWELL: dir. 01 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.56	36.16	23.10	4.60
10	28.56	36.19	23.13	4.54
20	28.46	36.14	23.12	4.48
50	27.16	36.26	23.64	4.44
100	25.28	36.50	24.41	4.40
150	21.60	36.73	25.66	3.82
200	20.17	36.69	26.02	3.69
300	18.12	36.45	26.37	3.55
400	15.52	36.07	26.70	3.49
500	13.43	35.77	26.92	3.49*

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.56	36.16	23.10	4.60
10	28.56	36.19	23.13	4.54
20	28.46	36.14	23.12	4.48
30	28.01	36.18	23.30	4.47
50	27.16	36.26	23.64	4.44
75	26.20	36.38	24.03	4.43
100	25.28	36.50	24.41	4.40
150	21.60	36.73	25.66	3.82
200	20.17	36.69	26.02	3.69
250	19.21	36.59	26.20	3.61
300	18.12	36.45	26.37	3.55
400	15.52	36.07	26.70	3.49
500	13.43	35.77	26.92	-

STATION 7

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	0.2	1.0	-	0.5
10	0.2	0.3	0.0	1.0	1.0
20	-	0.5	0.0	0.5	0.4
50	0.6	0.1	0.5	3.4	1.3
100	-	0.3	0.0	1.0	1.6
150	0.8	0.8	2.5	1.2	-
200	1.5	0.3	3.5	4.7	0.7
300	3.0	0.7	5.0	0.1	0.6
400	-	1.4	-	1.7	0.2
500	1.5	1.5	9.0	-	0.7

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	0.2	1.0	-	0.5
10	0.2	0.3	0.0	1.0	1.0
20	-	0.5	0.0	0.5	0.4
30	0.4	0.4	<0.5	1.5	0.7
50	0.6	0.1	0.5	3.4	1.3
75	0.7	0.2	<0.5	2.2	1.5
100	0.7	0.3	0.0	1.0	1.6
150	0.8	0.8	2.5	1.2	1.2
200	1.5	0.3	3.5	4.7	0.7
250	2.2	0.5	4.5	2.4	0.7
300	3.0	0.7	5.0	0.1	0.6
400	2.3	1.4	7.0	1.7	0.2
500	1.5	1.5	9.0	-	0.7

STATION 8

DATE Sept. 12, 1954 LAT. 28°18'N. LONG. 79°28'W. TIME 13
DEPTH 773 WIND 6 , 20 BAR. 14 AIR TEMP: dry 27.2°C, wet 25.0°C
HUMIDITY 84% WEATHER 03 CLOUDS: type 6 , amt. 5 SEA: dir. 23 , amt. 3
SWELL: dir. 01 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.36	36.18	23.18	4.56
10	28.40	36.22	23.20	4.56
19	28.40	36.20	23.19	4.55
48	26.92	36.18	23.65	4.49
97	25.92	36.36	24.10	4.19
146	23.25	36.64	25.12	4.03
195	20.20	36.64	25.98	3.59
294	18.42	36.56	26.38	4.49*
393	16.24	36.20	26.63	3.64
493	13.44	35.77	26.92	3.31
593	7.63	34.96	27.32	3.03

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.36	36.18	23.18	4.56
10	28.40	36.22	23.20	4.56
20	28.34	36.20	23.21	4.55
30	27.76	36.18	23.38	4.54
50	26.91	36.19	23.66	4.48
75	26.58	36.27	23.83	4.31
100	25.77	36.39	24.17	4.19
150	22.95	36.64	25.21	3.99
200	20.12	36.64	26.00	3.59
250	19.26	36.63	26.22	3.61
300	18.30	36.54	26.39	3.63
400	16.14	36.18	26.64	3.62
500	13.13	35.73	26.95	3.29

STATION 8

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.6	0.5	0.0	0.0	-
10	1.4	1.0	2.0	-	0.6
19	0.8	0.4	3.0	-	0.5
48	-	0.7	2.0	-	0.4
97	1.7	0.2	1.5	0.1	0.8
146	0.5	0.3	2.0	0.0	0.0
195	1.7	0.9	1.5	-	0.0
294	0.7	0.4	3.0	1.7	1.4
393	3.2	0.7	7.0	-	1.5
493	1.5	1.6	3.0	-	0.6
693	2.3	1.3	10.5	-	1.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.6	0.5	0.0	0.0	-
10	1.4	1.0	2.0	-	0.6
20	0.8	0.4	3.0	-	0.5
30	0.9	0.5	3.0	-	0.5
50	1.1	0.7	2.0	-	0.4
75	1.4	0.5	2.0	-	0.6
100	1.7	0.2	1.5	0.1	0.8
150	0.5	0.3	2.0	0.0	0.0
200	1.7	0.9	1.5	-	0.0
250	1.2	0.7	2.5	-	0.7
300	0.7	0.4	3.0	1.7	1.4
400	3.2	0.7	7.0	-	1.5
500	1.5	1.6	3.0	-	0.6
600	1.8	1.5	7.0	-	0.8
700	2.3	1.3	10.5	-	1.0

STATION 9

DATE Sept. 12, 1954 LAT. 28°20'N. LONG. 79°48'W. TIME 16
DEPTH 438 WIND 5 , 26 BAR. 15 AIR TEMP: dry 28.3°C, wet 26.1°C
HUMIDITY 84% WEATHER 02 CLOUDS: type 8 , amt. 5 SEA: dir. 26 , amt. 2
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.97	36.02	22.86	4.52
9	28.90	36.00	22.87	4.68
18	28.95	36.06	22.90	4.62
45	27.28	36.17	23.53	4.59
89	25.95	36.32	24.07	4.28
134	24.37	36.56	24.73	4.22
180	20.73	36.47	25.70	3.65
269	13.13	35.68	26.91	3.05
362	10.03	35.22	27.14	2.94

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.97	36.02	22.86	4.52
10	28.92	36.01	22.87	4.67
20	28.80	36.07	22.96	4.62
30	28.13	36.11	23.21	4.62
50	27.14	36.18	23.58	4.54
75	26.40	36.26	23.88	4.35
100	25.54	36.38	24.24	4.26
150	23.13	36.55	25.09	4.00
200	18.63	36.26	26.10	3.47
250	14.37	35.82	26.76	3.14
300	12.08	35.52	27.00	3.00

STATION 9

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.5	0.4	0.5	1.2	0.7
9	0.5	-	1.0	1.6	0.2
18	0.7	0.4	<0.5	1.1	1.0
45	1.1	0.3	1.0	0.0	2.2
89	0.5	-	4.0	0.4	0.6
134	0.4	0.3	3.5	1.5	0.5
180	0.6	-	3.5	-	0.7
269	1.1	1.0	3.0	1.0	1.3
362	1.7	-	12.0	1.1	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.5	0.4	0.5	1.2	0.7
10	0.5	0.4	1.0	1.6	0.2
20	0.7	0.4	<0.5	1.0	1.1
30	0.9	0.4	0.5	0.6	1.6
50	1.0	0.3	1.5	0.1	2.0
75	0.7	0.3	3.0	0.3	1.1
100	0.5	0.3	4.0	0.7	0.6
150	0.5	0.4	3.5	1.5	0.6
200	0.7	0.6	3.5	1.3	0.9
250	1.0	0.9	3.0	1.1	1.2
300	1.3	-	6.0	1.1	1.0

STATION 10

DATE Sept. 12, 1954 LAT. 28°21'N. LONG. 80°09'W. TIME 19
DEPTH 42 WIND -, - BAR. 14 AIR TEMP: dry 29.7°C, wet 26.1°C
HUMIDITY 77% WEATHER 01 CLOUDS: type 5, amt. 2 SEA: dir. 13, amt. 1
SWELL: dir. -, amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.81	35.93	22.85	4.57
10	28.35	35.97	23.03	4.61
20	28.20	35.99	23.09	4.58

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.81	35.93	22.85	4.57
10	28.35	35.97	23.03	4.61
20	28.20	35.99	23.09	4.58

STATION 10

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.4	0.2	-	0.0	1.8
10	0.8	0.1	0.5	1.8	1.4
20	0.6	0.6	0.5	-	0.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.4	0.2	-	0.0	1.8
10	0.8	0.1	0.5	1.8	1.4
20	0.6	0.6	0.5	-	0.0

STATION 11

DATE Sept. 12, 1954 LAT. 28°20'N. LONG. 80°33'W. TIME 22
DEPTH 12 WIND 5 , 05 BAR. 14 AIR TEMP: dry 28.9°C, wet 26.1°C
HUMIDITY 80% WEATHER 02 CLOUDS: type 1 , amt. 2 SEA: dir. 09 , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.97	36.15	22.96	4.76
10	28.40	36.17	23.16	4.21

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.97	36.15	22.96	4.76
10	28.40	36.17	23.16	4.21

STATION 11

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.6	0.6	0.0	0.0	0.4
10	1.1	0.7	1.5	-	1.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.6	0.6	0.0	0.0	0.4
10	1.1	0.7	1.5	-	1.0

STATION 12

DATE Sept. 12, 1954 LAT. 28°41'N. LONG. 80°25'W. TIME 01
DEPTH 18 WIND 3 , 14 BAR. 15 AIR TEMP: dry 28.2°C, wet 26.1°C
HUMIDITY 84% WEATHER 02 CLOUDS: type 1 , amt. 3 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.29	35.91	23.00	4.68
10	27.86	35.97	23.19	4.55

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.29	35.91	23.00	4.68
10	27.86	35.97	23.19	4.55

STATION 12

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	0.7	1.0	0.0	0.7
10	0.9	1.0	1.0	1.3	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	0.7	1.0	0.0	0.7
10	0.9	1.0	1.0	1.3	-

STATION 13

DATE Sept. 13, 1954 LAT. 29°00'N. LONG. 80°32'W. TIME 03
DEPTH 18 WIND 5 , 08 BAR. 15 AIR TEMP: dry 28.3°C, wet 26.1°C
HUMIDITY 84% WEATHER 02 CLOUDS: type 1 , amt. 2 SEA: dir. 08 , amt. 1
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.61	36.26	23.16	4.62
10	28.16	36.21	23.27	4.33

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.61	36.26	23.16	4.62
10	28.16	36.21	23.27	4.33

STATION 13

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.1	0.4	1.0	0.6	0.8
10	2.1	0.8	0.5	-	1.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.1	0.4	1.0	0.6	0.8
10	2.1	0.8	0.5	-	1.5

STATION 14

DATE Sept. 13, 1954 LAT. 29°00'N. LONG. 80°10'W. TIME 06
DEPTH 62 WIND 4 , 08 BAR. 16 AIR TEMP: dry 28.3°C, wet 25.0°C
HUMIDITY 77% WEATHER 60 CLOUDS: type -, amt. 7 SEA: dir. 08, amt. 1
SWELL: dir. -, amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	29.17	36.02	22.79	4.53
10	28.98	35.99	22.83	-
20	28.62	35.95	22.93	4.43
50	26.56	36.09	23.70	4.35

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	29.17	36.02	22.79	4.53
10	28.98	35.99	22.83	4.48
20	28.62	35.95	22.93	4.43
30	28.10	35.98	23.12	4.39
50	26.56	36.09	23.70	4.35

STATION 14

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	1.1	0.0	-	1.2
10	1.2	<0.1	0.0	0.0	-
20	-	0.8	3.0	1.6	1.1
50	-	0.8	3.5	-	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	1.1	0.0	-	1.2
10	1.2	<0.1	0.0	0.0	1.1
20	-	0.8	3.0	1.6	1.1
30	-	0.8	3.0	-	0.8
50	-	0.8	3.5	-	0.2

STATION 15

DATE Sept. 13, 1954 LAT. 28°59'N. LONG. 79°48'W. TIME 09
DEPTH 677 WIND 9 , 12 BAR. 15 AIR TEMP: dry 26.1°C, wet 23.3°C
HUMIDITY 79% WEATHER 61 CLOUDS: type - , amt. 8 SEA: dir. 14 , amt. 3
SWELL: dir. 16 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.90	35.98	22.85	4.53
7	28.93	36.00	22.86	4.53
14	28.92	35.99	22.86	4.59
35	27.46	36.08	23.40	4.68
71	26.21	36.22	23.91	4.35
106	25.50	36.39	24.26	4.15
141	24.05	36.60	24.86	4.01
212	-	36.14*	-	3.35
284	14.24	35.84	26.80	3.16
428	9.98	35.19	27.12	2.98

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.90	35.98	22.85	4.53
10	28.93	35.99	22.85	4.56
20	28.45	36.02	23.03	4.64
30	27.76	36.06	23.29	4.68
50	26.88	36.14	23.64	4.53
75	26.17	36.24	23.94	4.32
100	25.67	36.36	24.18	4.18
150	23.27	36.58	25.07	3.90
200	19.33	36.21	25.88	3.43
250	16.07	36.06	26.56	3.24
300	13.65	35.76	26.87	3.13
400	10.69	35.32	27.10	2.99

STATION 15

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.5	0.1	0.0	11.0	0.8
7	0.7	0.5	3.5	0.1	0.4
14	0.4	0.5	0.5	2.0	0.4
35	0.4	0.4	1.0	-	0.6
71	0.6	0.1	0.5	7.1	0.6
106	-	0.6	0.5	0.8	1.3
141	1.1	1.0	1.0	2.3	-
212	2.0	1.0	6.0	0.0	0.4
284	1.5	1.5	10.0	1.7	1.0
428	1.8	1.2	8.5	-	1.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.5	0.1	0.0	11.0	0.8
10	0.6	0.5	2.0	0.8	0.4
20	0.4	0.5	0.5	2.5	0.5
30	0.4	0.4	1.0	3.4	0.6
50	0.5	0.3	1.0	5.2	0.6
75	0.6	0.2	0.5	6.4	0.7
100	0.8	0.5	0.5	1.9	1.2
150	1.2	1.0	1.5	2.0	1.0
200	1.9	1.0	5.0	0.4	0.5
250	1.7	1.3	8.0	0.9	0.7
300	1.5	1.5	10.0	1.7	1.0
400	1.7	1.3	9.0	-	1.1

STATION 16

DATE Sept. 13, 1954 LAT. 29°00'N. LONG. 79°26'W. TIME 13
DEPTH 814 WIND 4 , 14 BAR. 17 AIR TEMP: dry 26.7°C, wet 22.2°C
HUMIDITY 68% WEATHER 02 CLOUDS: type 5 , amt. 7 SEA: dir. 14 , amt. 1
SWELL: dir. 16 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.23	36.13	23.19	4.52
10	28.23	36.15	23.20	4.53
20	28.23	36.18	23.23	4.53
50	27.63	36.22	23.45	4.67
100	25.27	36.47	24.39	4.94
150	22.38	36.63	25.37	4.81
200	19.93	36.60	26.02	4.70
300	18.27	36.58	26.43	4.55
400	17.64	36.44	26.48	4.52
500	15.64	36.08	26.68	3.42
700	8.89	35.10	27.23	3.03

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.23	36.13	23.19	4.52
10	28.23	36.15	23.20	4.53
20	28.23	36.18	23.23	4.53
30	28.10	36.20	23.29	4.57
50	27.63	36.22	23.45	4.67
75	26.52	36.36	23.92	4.86
100	25.27	36.47	24.39	4.94
150	22.38	36.63	25.37	4.81
200	19.93	36.60	26.02	4.70
250	18.97	36.60	26.27	4.61
300	18.27	36.58	26.43	4.55
400	17.64	36.44	26.48	4.52
500	15.64	36.08	26.68	3.42
600	12.72	35.63	26.95	3.17

STATION 16

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.4	0.1	0.5	0.8	0.4
10	0.6	0.4	0.0	-	0.8
20	0.5	0.2	0.0	-	1.1
50	0.6	0.5	0.5	0.5	0.9
100	1.7	1.2	0.0	-	1.0
150	0.7	0.1	0.0	0.8	1.0
200	0.6	0.7	1.5	-	0.4
300	0.6	-	1.0	0.0	1.1
400	0.8	0.9	4.0	1.5	1.2
500	2.7	1.0	9.5	0.0	1.0
700	-	-	15.5	-	1.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.4	0.1	0.5	0.8	0.4
10	0.6	0.4	0.0	0.7	0.8
20	0.5	0.2	0.0	0.7	1.1
30	0.5	0.3	<0.5	0.6	1.0
50	0.6	0.5	0.5	0.5	0.9
75	1.2	0.9	<0.5	0.6	1.0
100	1.7	1.2	0.0	0.7	1.0
150	0.7	0.1	0.0	0.8	1.0
200	0.6	0.7	1.5	0.5	0.4
250	0.6	0.7	1.5	0.2	0.8
300	0.6	0.8	1.0	0.0	1.1
400	0.8	0.9	4.0	1.5	1.2
500	2.7	1.0	9.5	0.0	1.0
600	-	-	12.5	-	1.0
700	-	-	15.5	-	1.0

STATION 17

DATE Sept. 13, 1954 LAT. 29°38'N. LONG. 79°37'W. TIME 18
DEPTH 795 WIND 5 , 12 BAR. 18 AIR TEMP: dry 28.3°C, wet 25.6°C
HUMIDITY 80% WEATHER 03 CLOUDS: type 8 , amt. 6 SEA: dir. 12 , amt. 2
SWELL: dir. 03 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.45	36.21	23.18	4.62
10	28.37	36.14	23.15	4.60
20	28.36	36.18	23.18	4.55
50	28.06	36.22	23.31	4.60
100	24.65	36.56	24.65	4.92
150	22.19	-	-	4.65
200	20.16	36.67	26.01	4.65*
300	17.91	36.57	26.51	4.69
400	15.92	36.17	26.68	4.10
500	12.94	35.61	26.90	3.11
700	8.00	34.99	27.29	3.05

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.45	36.21	23.18	4.62
10	28.37	36.14	23.15	4.60
20	28.36	36.18	23.18	4.55
30	28.30	36.18	23.20	4.55
50	28.06	36.22	23.31	4.60
75	26.24	36.41	24.04	4.83
100	24.65	36.56	24.65	4.92
150	22.19	36.64	25.43	4.65
200	20.16	36.67	26.01	4.66
250	18.89	36.66	26.34	4.68
300	17.91	36.57	26.51	4.69
400	15.92	36.17	26.68	4.10
500	12.94	35.61	26.90	3.11
600	10.00	35.22	27.14	3.07

STATION 17

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.4	0.8	0.0	1.5	0.4
10	-	0.8	6.5*	0.3	1.5
20	1.9	0.1	0.5	3.6	1.0
50	0.9	0.9	0.0	0.0	0.2
100	1.4	0.9	0.0	0.0	0.7
150	0.5	0.1	-	0.0	1.4
200	-	0.9	1.5	2.0	1.5
300	-	0.9	0.5	0.4	0.3
400	1.2	1.2	0.5	-	0.5
500	1.8	-	6.0	1.1	0.1
700	1.6	1.4	9.0	2.1	0.5

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.4	0.8	0.0	1.5	0.4
10	2.2	0.8	<0.5	0.3	1.5
20	1.9	0.1	0.5	3.6	1.0
30	1.6	0.4	<0.5	2.4	0.7
50	0.9	0.9	0.0	0.0	0.2
75	1.2	0.9	0.0	0.0	0.5
100	1.4	0.9	0.0	0.0	0.7
150	0.5	0.1	1.0	0.0	1.4
200	-	0.9	1.5	2.0	1.5
250	0.8	0.9	1.0	1.2	0.9
300	1.0	0.9	0.5	0.4	0.3
400	1.2	1.2	0.5	0.8	0.5
500	1.8	1.3	6.0	1.1	0.1
600	1.7	1.3	7.5	1.6	0.3
700	1.6	1.4	9.0	2.1	0.5

STATION 18

DATE Sept. 13, 1954 LAT. 29°40'N. LONG. 80°00'W. TIME 21
DEPTH 539 WIND 5 , 06 BAR. 17 AIR TEMP: dry 27.8°C, wet 24.4°C
HUMIDITY 76% WEATHER 01 CLOUDS: type 5 , amt. 7 SEA: dir. 06 , amt. 2
SWELL: dir. 03 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	29.02	36.07	22.88	4.53
9	28.99	36.06	22.88	4.59
18	28.95	36.05	22.89	4.60
45	28.81	36.10	22.97	4.66
91	26.28	36.25	23.91	4.43
137	23.35	36.48	24.97	3.99
183	17.90	36.31	26.32	3.31
275	10.75	35.30	27.07	2.94
369	9.62	35.19	27.18	3.04
463	7.69	34.96	27.31	3.21

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	29.02	36.07	22.88	4.53
10	28.99	36.06	22.88	4.59
20	28.88	36.05	22.91	4.61
30	28.82	36.07	22.95	4.64
50	28.55	36.11	23.07	4.65
75	27.21	36.19	23.57	4.53
100	25.90	36.33	24.09	4.36
150	21.68	36.45	25.43	3.76
200	16.13	36.06	26.55	3.21
250	12.10	35.49	26.97	2.99
300	10.53	35.28	27.10	2.96
400	9.07	35.13	27.23	3.09

STATION 18

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.5	0.8	0.5	-	0.0
9	4.3	1.1	-	-	0.3
18	2.4	0.2	2.5	2.3	1.1
45	0.3	-	-	1.9	1.0
91	1.6	0.0	1.5	-	1.0
137	2.7	0.4	0.0	0.0	0.8
183	2.0	0.6	-	0.0	0.0
275	1.8	2.0	21.5	0.0	0.9
369	4.7	2.2	12.0	-	0.3
463	1.9	1.0	15.5	-	1.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.5	0.8	0.5	-	0.0
10	4.3	1.1	1.5	-	0.3
20	2.2	0.2	2.5	2.3	1.1
30	1.5	0.2	2.5	2.2	1.1
50	0.4	0.1	2.0	1.9	1.0
75	1.1	<0.1	1.5	-	1.0
100	1.8	0.1	1.0	-	1.0
150	2.5	0.5	2.0	0.0	0.6
200	2.0	0.9	10.0	0.0	0.2
250	1.8	1.6	17.5	0.0	0.7
300	2.6	2.1	19.0	0.0	0.7
400	3.8	1.8	13.0	-	0.6

STATION 19

DATE Sept. 14, 1954 LAT. 29°40'N. LONG. 80°23'W. TIME 00
DEPTH 40 WIND 3 , 13 BAR. 17 AIR TEMP: dry 26.1°C, wet 23.9°C
HUMIDITY 83% WEATHER 02 CLOUDS: type 5 , amt. 7 SEA: dir. 13 , amt. 1
SWELL: dir. 07 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.52	35.86	22.89	4.59
10	28.39	35.95	23.00	4.59
20	28.35	36.03	23.07	4.55
30	28.17	36.03	23.13	4.52

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.52	35.86	22.89	4.59
10	28.39	35.95	23.00	4.59
20	28.35	36.03	23.07	4.55
30	28.17	36.03	23.13	4.52

STATION 19

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.3	-	1.0	2.7	1.1
10	-	0.9	0.0	0.1	0.4
20	-	-	0.0	0.4	-
30	2.2	0.1	1.0	1.2	0.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.3	-	1.0	2.7	1.1
10	-	0.9	0.0	0.1	0.4
20	0.5	0.5	0.0	0.4	0.2
30	2.2	0.1	1.0	1.2	0.0

STATION 20

DATE Sept. 14, 1954 LAT. 29°40'N. LONG. 80°45'W. TIME 03
DEPTH 27 WIND 4 , 07 BAR. 18 AIR TEMP: dry 26.1°C, wet 23.9°C
HUMIDITY 83% WEATHER 01 CLOUDS: type -, amt. 5 SEA: dir. 10 , amt. 1
SWELL: dir. 07 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.15	36.31	23.35	4.51
10	28.19	36.29	23.32	4.44
20	28.16	36.29	23.33	4.43

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.15	36.31	23.35	4.51
10	28.19	36.29	23.32	4.44
20	28.16	36.29	23.33	4.43

STATION 20

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.5	0.6	0.0	3.6	0.7
10	-	0.9	0.0	-	0.8
20	1.6	0.9	1.0	0.0	0.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.5	0.6	0.0	3.6	0.7
10	1.1	0.9	0.0	1.8	0.8
20	1.6	0.9	1.0	0.0	0.6

STATION 21

DATE Sept. 14, 1954 LAT. 29°40'N. LONG. 81°08'W. TIME 06
DEPTH 18 WIND 4 , 09 BAR. 18 AIR TEMP: dry 26.1°C, wet 23.9°C
HUMIDITY 83% WEATHER 01 CLOUDS: type - , amt. 5 SEA: dir. 09 , amt. 1
SWELL: dir. 07 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.33	36.27	23.26	4.35
10	28.33	36.27	23.26	4.35

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.33	36.27	23.26	4.35
10	28.33	36.27	23.26	4.35

STATION 21

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	1.1	0.0	2.9	0.8
10	1.2	1.1	0.0	-	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	1.1	0.0	2.9	0.8
10	1.2	1.1	0.0	-	0.4

STATION 22

DATE Sept. 14, 1954 LAT. 30°00'N. LONG. 81°14'W. TIME 08
DEPTH 13 WIND 4 , 09 BAR. 17 AIR TEMP: dry 27.2°C, wet 24.4°C
HUMIDITY 80% WEATHER 03 CLOUDS: type 4 , amt. 2 SEA: dir. 09 , amt. 1
SWELL: dir. 07 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.36	36.15	23.16	4.38*
10	28.34	36.18	23.19	4.39

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.36	36.15	23.16	-
10	28.34	36.18	23.19	4.39

STATION 22

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	1.4	0.0	1.7	0.7
10	1.0	1.1	0.0	-	0.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	1.4	0.0	1.7	0.7
10	1.0	1.1	0.0	-	0.0

STATION 23

DATE Sept. 14, 1954 LAT. 30°20'N. LONG. 81°20'W. TIME 11
DEPTH 16 WIND 4 , 13 BAR. 18 AIR TEMP: dry 27.2°C, wet 24.4°C
HUMIDITY 80% WEATHER 01 CLOUDS: type 8 , amt. 1 SEA: dir. 10 , amt. 1
SWELL: dir. 03 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.38	35.86	22.94	4.17
10	28.41	35.85	22.92	4.14

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.38	35.86	22.94	4.17
10	28.41	35.85	22.92	4.14

STATION 23

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	0.6	1.0	0.0	2.0
10	1.0	0.7	2.0	4.6	1.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	0.6	1.0	0.0	2.0
10	1.0	0.7	2.0	4.6	1.5

STATION 24

DATE Sept. 14, 1954 LAT. 30°20'N. LONG. 80°58'W. TIME 14
DEPTH 25 WIND 3 , 10 BAR. 18 AIR TEMP: dry 26.7°C, wet 25.0°C
HUMIDITY 87% WEATHER 03 CLOUDS: type 5 , amt. 4 SEA: dir. 10 , amt. 2
SWELL: dir. 10 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.32	36.47	23.42	4.35
10	28.30	36.48	23.43	4.36

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.32	36.47	23.42	4.35
10	28.30	36.48	23.43	4.36

STATION 24

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.6	0.8	2.0	0.0	0.9
10	1.2	0.3	0.5	4.2	1.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.6	0.8	2.0	0.0	0.9
10	1.2	0.3	0.5	4.2	1.0

STATION 25

DATE Sept. 14, 1954 LAT. 30°20'N. LONG. 80°35'W. TIME 14
DEPTH 31 WIND 5 , 10 BAR. 18 AIR TEMP: dry 27.8°C, wet 25.0°C
HUMIDITY 80% WEATHER 03 CLOUDS: type 5 , amt. 5 SEA: dir. 10 , amt. 2
SWELL: dir. 03 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.18	36.47	23.46	4.54
10	28.14	36.47	23.48	4.58
20	28.11	36.44	23.46	4.51

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.18	36.47	23.46	4.54
10	28.14	36.47	23.48	4.58
20	28.11	36.44	23.46	4.51

STATION 25

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.3	0.3	0.5	2.4	0.5
10	1.4	0.6	2.0	0.9	1.7
20	1.7	0.2	0.5	1.6	1.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.3	0.3	0.5	2.4	0.5
10	1.4	0.6	2.0	0.9	1.7
20	1.7	0.2	0.5	1.6	1.6

STATION 26

DATE Sept. 14, 1954 LAT. 30°18'N. LONG. 80°12'W. TIME 19
DEPTH 146 WIND 6 , 13 BAR. 18 AIR TEMP: dry 24.4°C, wet 23.9°C
HUMIDITY 95% WEATHER 63 CLOUDS: type 8 , amt. 8 SEA: dir. 12 , amt. 3
SWELL: dir. 13 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.31	35.61	22.77	4.58
10	28.43	35.93	22.97	4.59
20	28.30	35.95	23.03	4.58
50	27.25	36.22	23.58	4.61
75	26.69	-	-	4.68
100	21.08	36.26	25.45	4.14

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.31	35.61	22.77	4.58
10	28.43	35.93	22.97	4.59
20	28.30	35.95	23.03	4.58
30	27.90	36.06	23.25	4.59
50	27.25	36.22	23.58	4.61
75	26.69	36.24	23.77	4.68
100	21.08	36.26	25.45	4.14

STATION 26

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.6	0.3	0.5	5.5	0.1
10	1.0	0.2	0.0	-	1.1
20	0.7	-	0.0	0.4	0.4
50	0.5	-	0.0	-	0.2
75	1.0	0.2	-	2.7	1.2
100	1.6	1.3	1.5	1.8	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.6	0.3	0.5	5.5	0.1
10	1.0	0.2	0.0	3.0	1.1
20	0.7	0.2	0.0	0.4	0.4
30	0.6	0.2	0.0	0.8	0.3
50	0.5	0.2	0.0	1.6	0.2
75	1.0	0.2	1.0	2.7	1.2
100	1.6	1.3	1.5	1.8	0.2

STATION 27

DATE Sept. 14, 1954 LAT. 30°20'N. LONG. 79°50'W. TIME 22
DEPTH 594 WIND 6 , 11 BAR. 17 AIR TEMP: dry 27.2°C, wet 25.0°C
HUMIDITY 83% WEATHER 21 CLOUDS: type 9 , amt. 6 SEA: dir. 13 , amt. 3
SWELL: dir. 10 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.78	36.06	22.95	4.57
8	28.76	36.02	22.93	4.59
16	28.79	36.02	22.92	4.54
40	28.10	36.06	23.18	4.62
82	26.23	36.24	23.92	4.26
122	24.63	36.51	24.61	3.92
164	22.97	36.65	25.21	3.77
244	15.48	35.97	26.63	3.12
324	12.20	35.53	26.98	3.05
402	10.15	35.26	27.15	3.03
578	8.58	35.07	27.26	2.99

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.78	36.06	22.95	4.57
10	28.78	36.02	22.92	4.57
20	28.69	36.02	22.95	4.57
30	28.42	36.04	23.06	4.61
50	27.64	36.09	23.35	4.53
75	26.53	36.20	23.79	4.32
100	25.51	36.38	24.25	4.08
150	23.70	36.60	24.96	3.83
200	19.08	36.31	26.02	3.41
250	15.19	35.93	26.66	3.11
300	13.06	35.64	26.89	3.07
400	10.19	35.26	27.14	3.03
500	8.59	35.08	27.27	3.01

STATION 27

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.8	2.0	0.6	0.0
8	1.7	0.6	2.0	0.1	1.3
16	0.8	-	0.0	0.0	0.7
40	2.6	0.8	0.0	-	<0.1
82	-	0.8	0.0	-	0.6
122	-	0.8	0.5	0.0	-
164	1.0	-	1.0	-	0.2
244	-	1.8	6.0	-	-
324	-	2.3	10.5	0.0	0.4
402	2.9	2.4	12.5	2.2	-
578	2.8	-	11.5	-	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.8	2.0	0.6	0.0
10	1.5	0.6	1.5	0.1	1.2
20	1.1	0.7	0.0	0.0	0.6
30	1.9	0.7	0.0	-	0.3
50	2.5	0.8	0.0	-	0.2
75	2.1	0.8	0.0	-	0.5
100	1.8	0.8	<0.5	0.0	0.6
150	1.2	1.0	1.0	-	0.3
200	1.3	1.4	3.5	-	0.3
250	1.7	1.8	6.5	-	0.4
300	2.1	2.1	9.0	0.0	0.4
400	2.9	2.4	12.5	2.2	-
500	2.8	-	12.0	-	-

STATION 28

DATE Sept. 15, 1954 LAT. 30°20'N. LONG. 79°27'W. TIME 01
DEPTH 795 WIND 9 , 10 BAR. 17 AIR TEMP: dry 26.7°C, wet 24.4°C
HUMIDITY 83% WEATHER 18 CLOUDS: type 9 , amt. 6 SEA: dir. 10 , amt. 3
SWELL: dir. 10 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.21	36.15	23.21	4.56
10	28.21	36.13	23.20	4.57
20	28.21	36.22	23.26	4.62
49	27.41	36.29	23.58	4.72
99	25.64	36.47	24.28	-
149	23.07	36.71	25.23	4.85
199	20.70	36.74	25.92	4.66
298	-	36.60	-	4.63
398	16.42	36.28	26.65	4.25
498	13.59	35.79	26.90	3.26
697	8.71	35.11	27.27	2.99

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.21	36.15	23.21	4.56
10	28.21	36.13	23.20	4.57
20	28.21	36.22	23.26	4.62
30	27.95	36.24	23.36	4.66
50	27.38	36.29	23.59	4.72
75	26.59	36.38	23.91	4.82
100	25.59	36.48	24.30	4.81
150	23.02	36.71	25.24	4.85
200	20.68	36.74	25.92	4.66
250	19.77	36.69	26.13	4.63
300	18.75	36.60	26.33	4.63
400	16.36	36.27	26.66	4.22
500	13.54	35.78	26.90	3.25
600	10.96	35.39	27.11	3.08

STATION 28

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.6	0.5	-	0.7
10	0.3	0.2	0.0	0.5	-
20	1.5	0.3	0.5	3.3	0.0
49	0.5	0.2	0.0	-	1.3
99	0.7	0.7	1.0	-	0.2
149	0.4	0.3	2.0	0.5	0.6
199	1.2	0.3	3.0	-	0.5
298	1.1	0.3	2.5	6.1	1.9
398	1.7	0.7	5.5	0.0	1.2
498	2.0	1.3	7.0	1.4	0.4
697	2.6	2.5	4.5	2.0	1.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.6	0.5	-	0.7
10	0.3	0.2	0.0	0.5	0.4
20	1.5	0.3	0.5	3.3	0.0
30	1.2	0.3	<0.5	-	0.4
50	0.5	0.2	0.0	-	1.3
75	0.6	0.5	0.5	-	0.8
100	0.7	0.7	1.0	-	0.2
150	0.4	0.3	2.0	0.5	0.6
200	1.2	0.3	3.0	-	0.5
250	1.2	0.3	3.0	-	1.2
300	1.1	0.3	2.5	6.1	1.9
400	1.7	0.7	5.5	0.0	1.2
500	2.0	1.3	7.0	1.4	0.4
600	2.3	1.9	6.0	1.7	0.9
700	2.6	2.5	4.5	2.0	1.3

STATION 29

DATE Sept. 15, 1954 LAT. 30°59'N. LONG. 79°14'W. TIME 05
DEPTH 732 WIND 4 , 09 BAR. 18 AIR TEMP: dry 25.0°C, wet 23.9°C
HUMIDITY 91% WEATHER 61 CLOUDS: type - , amt. 9 SEA: dir. 09 , amt. 1
SWELL: dir. 10 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.30	36.11	23.15	4.52
10	28.39	36.14	23.14	4.52
20	28.37	36.12	23.14	4.52
50	28.33	36.16	23.18	4.52
100	24.95	36.65	24.62	4.49
150	22.22	36.70	25.47	4.58
200	19.86	36.67	26.09	4.54
300	18.63	36.58	26.34	4.48
400	17.67	36.45	26.48	4.19
500	15.90	36.17	26.69	4.08
700	9.90	35.25	27.18	3.13

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.30	36.11	23.15	4.52
10	28.39	36.14	23.14	4.52
20	28.37	36.12	23.14	4.52
30	28.35	36.13	23.15	4.52
50	28.33	36.16	23.18	4.52
75	26.56	36.46	23.98	4.49
100	24.95	36.65	24.62	4.49
150	22.22	36.70	25.47	4.58
200	19.86	36.67	26.09	4.54
250	19.21	36.63	26.23	4.54
300	18.63	36.58	26.34	4.48
400	17.67	36.45	26.48	4.19
500	15.90	36.17	26.69	4.08
600	13.31	35.77	26.94	3.73

STATION 29

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	4.6	0.1	0.0	0.0	-
10	0.7	0.8	0.0	0.1	1.1
20	5.1	0.1	0.5	0.0	0.3
50	1.3	0.3	1.5	1.9	0.4
100	1.1	-	2.0	1.2	1.1
150	1.1	0.2	11.0*	2.0	0.4
200	1.2	0.5	1.0	1.1	0.9
300	1.4	1.1	0.5	-	0.4
400	1.7	1.0	1.5	0.6	1.0
500	-	2.3	3.5	-	0.8
700	3.0	-	13.0	0.9	0.2

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	4.6	0.1	0.0	0.0	-
10	0.7	0.8	0.0	0.1	1.1
20	5.1	0.1	0.5	0.0	0.3
30	-	0.1	1.0	0.6	0.3
50	1.3	0.3	1.5	1.9	0.4
75	1.2	0.3	2.0	1.6	0.8
100	1.1	0.3	2.0	1.2	1.1
150	1.1	0.2	1.5	2.0	0.4
200	1.2	0.5	1.0	1.1	0.9
250	1.3	0.8	1.0	1.0	0.7
300	1.4	1.1	0.5	0.9	0.4
400	1.7	1.0	1.5	0.6	1.0
500	2.1	2.3	3.5	0.7	0.8
600	2.5	-	8.5	0.8	0.5
700	3.0	-	13.0	0.9	0.2

STATION 30

DATE Sept. 15, 1954 LAT. 31°00'N. LONG. 79°36'W. TIME 08
DEPTH 585 WIND 3 , 07 BAR. 17 AIR TEMP: dry 25.6°C, wet 23.9°C
HUMIDITY 87% WEATHER 81 CLOUDS:type - ,amt. 9 SEA:dir. 08 ,amt. 1
SWELL:dir. 10 ,amt. 1 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.83	36.04	22.92	4.43
8	28.88	36.04	22.91	4.52
16	28.88	36.06	22.92	4.51
39	28.92	36.06	22.91	4.50
72	26.78	36.21	23.72	4.59
114	24.73	36.38	24.49	4.11
152	21.24	36.29	25.43	3.88
224	16.42	36.16	26.56	3.19
298	13.38	35.69	26.87	3.08
367	10.36	35.28	27.13	3.00

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.83	36.04	22.92	4.43
10	28.88	36.05	22.91	4.52
20	28.90	36.06	22.91	4.50
30	28.91	36.06	22.91	4.50
50	28.15	36.11	23.20	4.58
75	26.70	36.23	23.76	4.55
100	25.62	36.35	24.19	4.24
150	21.41	36.29	25.38	3.89
200	17.82	36.24	26.28	3.36
250	15.38	35.99	26.67	3.15
300	13.29	35.68	26.88	3.08

STATION 30

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.4	0.2	0.0	3.2	0.3
8	3.7	0.2	0.0	0.6	1.5
16	1.0	0.6	0.0	2.0	1.4
39	0.7	0.5	0.0	0.0	1.3
72	1.0	0.1	0.0	3.6	1.4
114	0.8	0.1	1.0	4.3	-
152	1.3	0.7	4.5	0.8	0.6
224	3.0	1.0	9.5	0.8	0.9
298	2.1	1.2	9.0	0.0	0.7
367	2.8	1.5	11.0	3.3	1.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.4	0.2	0.0	3.2	0.3
10	2.8	0.3	0.0	0.9	1.5
20	0.9	0.6	0.0	1.7	1.4
30	0.8	0.5	0.0	0.8	1.3
50	0.8	0.4	0.0	1.2	1.3
75	1.0	0.1	0.0	3.7	1.4
100	0.9	0.1	0.5	4.1	1.1
150	1.3	0.7	4.5	0.8	0.6
200	2.4	0.9	8.0	0.8	0.8
250	2.7	1.1	9.5	0.5	0.8
300	2.1	1.2	9.0	0.0	0.7

STATION 31

DATE Sept. 15, 1954 LAT. 31°00' N. LONG. 80°00' W. TIME 12
DEPTH 51 WIND 8 , 11 BAR. 18 AIR TEMP: dry 23.9 °C, wet 23.9 °C
HUMIDITY 99 % WEATHER 61 CLOUDS: type 0 , amt. 8 SEA: dir. 11 , amt. 3
SWELL: dir. 11 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.67	35.68	23.03	4.59
10	27.47	35.90	23.27	-
20	23.50	36.18	24.70	4.74
40	20.27	36.22	25.64	4.06

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.67	35.68	23.03	4.59
10	27.47	35.90	23.27	4.70
20	23.50	36.18	24.70	4.74
30	21.89	36.20	25.18	4.51

STATION 31

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.7	0.1	0.5	2.9	0.6
10	3.9	0.4	2.5	-	0.9
20	1.7	0.5	1.0	0.1	1.9
40	0.8	0.5	0.5	2.9	1.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.7	0.1	0.5	2.9	0.6
10	3.9	0.4	2.5	1.5	0.9
20	1.7	0.5	1.0	0.1	1.9
30	0.8	0.5	0.5	2.9	1.6

STATION 32

DATE Sept. 15, 1954 LAT. 31°00'N. LONG. 80°23'W. TIME 14
DEPTH 34 WIND 7 , 10 BAR. 18 AIR TEMP: dry 25.0°C, wet 23.9°C
HUMIDITY 91% WEATHER 18 CLOUDS: type 9 , amt. - SEA: dir. 13 , amt. 2
SWELL: dir. 16 , amt. 3 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.50	36.13	23.43	-
10	27.54	36.11	23.40	-
20	27.54	36.14	23.42	-
30	27.52	36.14	23.43	-

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.50	36.13	23.43	-
10	27.54	36.11	23.40	-
20	27.54	36.14	23.42	-
30	27.52	36.14	23.43	-

STATION 32

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.1	0.4	0.0	1.5	1.1
10	1.9	-	0.0	0.4	1.1
20	0.6	0.0	0.5	0.0	1.4
30	1.1	0.4	0.5	-	1.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.1	0.4	0.0	1.5	1.1
10	1.9	0.2	0.0	0.4	1.1
20	0.6	0.0	0.5	0.0	1.4
30	1.1	0.4	0.5	-	1.0

STATION 33

DATE Sept. 15, 1954 LAT. 31°00'N. LONG. 80°46'W. TIME 17
DEPTH 25 WIND 8 , 14 BAR. 17 AIR TEMP: dry 27.2 °C, wet 23.9 °C
HUMIDITY 76% WEATHER 25 CLOUDS: type 8, amt. 7 SEA: dir. 14 , amt. 3
SWELL: dir. 16 , amt. 3 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.92	36.25	23.38	-
10	27.93	36.24	23.37	-

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.92	36.25	23.38	-
10	27.93	36.24	23.37	-

STATION 33

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.2	0.2	0.0	3.2	0.6
10	1.1	0.3	3.0	0.0	0.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.2	0.2	0.0	3.2	0.6
10	1.1	0.3	3.0	0.0	0.1

STATION 34

DATE Sept. 15, 1954 LAT. 31°00'N. LONG. 81°09'W. TIME 20
DEPTH 12 WIND 9 , 13 BAR. 16 AIR TEMP: dry 26.7°C, wet 25.6°C
HUMIDITY 92% WEATHER 25 CLOUDS: type 9 , amt. 6 SEA: dir. 13 , amt. 3
SWELL: dir. 11 , amt. 3 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.04	35.71	22.94	-
10	28.07	35.75	22.96	-

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.04	35.71	22.94	-
10	28.07	35.75	22.96	-

STATION 34

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.6	0.2	6.0	-	1.5
10	0.9	0.4	0.5	-	1.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.6	0.2	6.0	-	1.5
10	0.9	0.4	0.5	-	1.3

STATION 35

DATE Sept. 20, 1954 LAT. 31°20'N. LONG. 80°53'W. TIME 00
DEPTH 16 WIND 8 , 15 BAR. 13 AIR TEMP: dry 28.3°C, wet 26.1°C
HUMIDITY 84% WEATHER 01 CLOUDS: type - , amt. 0 SEA: dir. 17 , amt. 2
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.18	36.04	23.14	4.78
10	28.20	36.05	23.14	4.67

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.18	36.04	23.14	4.78
10	28.20	36.05	23.14	4.67

STATION 35

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.9	0.1	0.0	6.7	0.4
10	1.7	0.3	0.5	0.0	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.9	0.1	0.0	6.7	0.4
10	1.7	0.3	0.5	0.0	0.4

STATION 36

DATE Sept. 21, 1954 LAT. 31°42'N. LONG. 80°36'W. TIME 03
DEPTH 16 WIND 9 , 15 BAR. 14 AIR TEMP: dry 27.8°C, wet 25.6°C
HUMIDITY 84% WEATHER 02 CLOUDS: type - , amt. 0 SEA: dir. 15 , amt. 2
SWELL: dir. 13 , amt. 2 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.06	36.06	23.19	4.93
10	28.08	35.92	23.08	4.86

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.06	36.06	23.19	4.93
10	28.08	35.92	23.08	4.86

STATION 36

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.6	0.3	1.0	4.6	0.4
10	0.9	0.3	0.0	2.4	1.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.6	0.3	1.0	4.6	0.4
10	0.9	0.3	0.0	2.4	1.2

STATION 37

DATE Sept. 21, 1954 LAT. 31°40'N. LONG. 80°20'W. TIME 16
DEPTH 25 WIND 9 , 24 BAR. 14 AIR TEMP: dry 27.8°C, wet 26.1°C
HUMIDITY 88% WEATHER 01 CLOUDS: type 8 , amt. 1 SEA: dir. 24 , amt. 2
SWELL: dir. 20 , amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.02	36.20	23.31	5.01
10	27.85	36.20	23.37	4.94
20	27.78	36.19	23.38	4.86

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.02	36.20	23.31	5.01
10	27.85	36.20	23.37	4.94
20	27.78	36.19	23.38	4.86

STATION 37

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.6	0.1	0.0	3.2	0.8
10	0.5	-	0.5	7.1	0.4
20	1.6	<0.1	0.0	0.6	0.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.6	0.1	0.0	3.2	0.8
10	0.5	0.1	0.5	7.1	0.4
20	1.6	<0.1	0.0	0.6	0.5

STATION 38

DATE Sept. 21, 1954 LAT. 31°36' N. LONG. 79°51' W. TIME 21
DEPTH 40 WIND 9 , 20 BAR. 11 AIR TEMP: dry 27.8 °C, wet 26.1 °C
HUMIDITY 88 % WEATHER 02 CLOUDS: type 8 , amt. 1 SEA: dir. 20 , amt. 3
SWELL: dir. 19 , amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.93	36.13	23.29	4.73
10	27.90	36.10	23.28	4.68
20	27.72	36.08	23.32	4.69
30	27.45	36.09	23.41	4.64

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.93	36.13	23.29	4.73
10	27.90	36.10	23.28	4.68
20	27.72	36.08	23.32	4.69
30	27.45	36.09	23.41	4.64

STATION 38

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.6	0.4	0.5	-	1.1
10	1.0	0.3	3.0	-	-
20	0.9	0.6	0.0	-	-
30	0.5	0.2	0.5	-	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.6	0.4	0.5	-	1.1
10	1.0	0.3	3.0	-	-
20	0.9	0.6	0.0	-	-
30	0.5	0.2	0.5	-	0.3

STATION 39

DATE Sept. 22, 1954 LAT. 31°33'N. LONG. 79°27'W. TIME 00
DEPTH 521 WIND 12 , 20 BAR. 11 AIR TEMP: dry 27.8°C, wet 26.1°C
HUMIDITY 88% WEATHER 03 CLOUDS: type 5 , amt. 2 SEA: dir. 19 , amt. 3
SWELL: dir. 19 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.66	36.09	23.02	4.58
7	28.69	36.08	23.00	4.61
13	28.28	36.04	23.11	4.63
32	27.04	36.15	23.59	4.57
65	21.67	36.31	25.32	4.22
95	18.17	36.36	26.29	3.47
126	16.90	36.24	26.51	3.45
182	15.83	36.08	26.63	3.51
233	13.90	35.77	26.82	3.19
258	10.43	35.30	27.13	2.95

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.66	36.09	23.02	4.58
10	28.48	36.06	23.05	4.62
20	27.98	36.08	23.23	4.62
30	27.23	36.14	23.52	4.58
50	23.91	36.25	24.63	4.44
75	20.26	36.34	25.73	3.89
100	17.93	36.34	26.33	3.46
150	16.58	36.19	26.54	3.47
200	15.36	35.99	26.67	3.42
250	11.72	35.47	27.03	3.03

STATION 39

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	1.1	0.0	-	1.5
7	-	0.9	<0.5	1.1	1.8
13	0.8	0.3	2.5	2.6	1.5
32	0.8	0.2	0.5	0.0	0.2
65	1.1	0.3	-	3.2	0.9
95	0.9	-	1.0	3.5	0.2
126	1.0	1.1	2.5	-	1.7
182	1.3	0.8	10.0	2.3	0.6
233	1.6	1.6	3.0	-	0.6
258	1.9	1.3	10.0	-	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	1.1	0.0	-	1.5
10	-	0.6	1.5	1.9	1.7
20	0.8	0.3	2.0	1.7	1.0
30	0.8	0.2	0.5	0.3	0.4
50	1.0	0.3	0.5	1.8	0.6
75	1.0	0.4	1.0	3.3	0.7
100	0.9	0.8	1.0	3.5	0.2
150	1.1	1.0	5.5	2.7	1.2
200	1.4	1.1	7.5	2.3	0.6
250	1.9	1.3	10.0	-	0.3

STATION 43

DATE Sept. 22, 1954 LAT. 32°18'N. LONG. 79°21'W. TIME 12
DEPTH 36 WIND 7 , 32 BAR. 12 AIR TEMP: dry 25.6°C, wet 23.3°C
HUMIDITY 83% WEATHER 03 CLOUDS: type 1 , amt. 3 SEA: dir. 32 , amt. 3
SWELL: dir. 23 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.47	36.02	23.36	4.71
10	27.55	36.01	23.32	4.70
20	27.31	36.03	23.41	4.61

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.47	36.02	23.36	4.71
10	27.55	36.01	23.32	4.70
20	27.31	36.03	23.41	4.61

STATION 43

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.4	-	0.0	-	0.5
10	0.8	-	2.5	6.7	-
20	0.4	-	0.0	0.6	1.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.4	-	0.0	-	0.5
10	0.8	-	2.5	6.7	1.1
20	0.4	-	0.0	0.6	1.6

STATION 44

DATE Sept. 22, 1954 LAT. 32°34'N. LONG. 79°35'W. TIME 14
DEPTH 16 WIND 9 , 02 BAR. 15 AIR TEMP: dry 25.0°C, wet 20.6°C
HUMIDITY 67% WEATHER 03 CLOUDS: type 4 , amt. 4 SEA: dir. 04 , amt. 3
SWELL: dir. 36 , amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.30	36.08	23.46	4.55
10	27.32	36.07	23.44	4.52

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.30	36.08	23.46	4.55
10	27.32	36.07	23.44	4.52

STATION 44

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	0.7	0.0	0.1	0.8
10	1.0	0.7	1.0	0.7	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	0.7	0.0	0.1	0.8
10	1.0	0.7	1.0	0.7	0.3

STATION 45

DATE Sept. 25, 1954 LAT. 32°40'N. LONG. 79°33'W. TIME 16
DEPTH 11 WIND 4 , 10 BAR. 21 AIR TEMP: dry 25.0°C, wet 21.1°C
HUMIDITY 71% WEATHER 01 CLOUDS: type 8 , amt. 1 SEA: dir. 10 , amt. 2
SWELL: dir. 09 , amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.39	36.16	23.81	4.76

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.39	36.16	23.81	4.76

STATION 45

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.2	1.5	2.3	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.2	1.5	2.3	0.9

STATION 46

DATE Sept. 25, 1954 LAT. 32°54'N. LONG. 79°16'W. TIME 18
DEPTH 9 WIND 5 , 10 BAR. 20 AIR TEMP: dry 25.0°C, wet 21.7°C
HUMIDITY 75% WEATHER 02 CLOUDS: type 8 , amt. 1 SEA: dir. 10 , amt. 1
SWELL: dir. 12 , amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.17	35.89	23.67	4.89

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.17	35.89	23.67	4.89

STATION 46

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.3	0.3	0.0	4.0	1.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.3	0.3	0.0	4.0	1.0

STATION 47

DATE Sept. 25, 1954 LAT. 32°40'N. LONG. 79°00'W. TIME 21
DEPTH 26 WIND 4 , 11 BAR. 18 AIR TEMP: dry 25.0°C, wet 21.1°C
HUMIDITY 71% WEATHER 01 CLOUDS: type 4 , amt. 1 SEA: dir. 10 , amt. 1
SWELL: dir. 11 , amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.65	36.15	23.72	-
10	26.22	36.16	23.86	-
20	26.08	36.13	23.88	4.74

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.65	36.15	23.72	-
10	26.22	36.16	23.86	-
20	26.08	36.13	23.88	4.74

STATION 47

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.9	0.6	0.5	0.0	0.9
10	1.2	0.3	0.0	2.3	1.4
20	0.5	0.1	1.5	-	1.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.9	0.6	0.5	0.0	0.9
10	1.2	0.3	0.0	2.3	1.4
20	0.5	0.1	1.5	-	1.5

STATION 48

DATE Sept. 26, 1954 LAT. 32°24'N. LONG. 78°45'W. TIME 00
DEPTH 208 WIND 3 , 14 BAR. 18 AIR TEMP: dry 25.6°C, wet 20.6°C
HUMIDITY 63% WEATHER 03 CLOUDS: type 4 , amt. 2 SEA: dir. 14 , amt. 1
SWELL: dir. 11 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.65	36.05	23.32	4.52
10	27.56	36.04	23.34	4.64
20	27.44	36.06	23.40	4.64
50	20.97	36.18	25.42	4.08
100	11.82	35.45	26.99	3.10
150	7.76	34.97	27.31	3.14
200	7.45	34.95	27.34	3.29

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.65	36.05	23.32	4.52
10	27.56	36.04	23.34	4.64
20	27.44	36.06	23.40	4.64
30	25.20	36.15	24.17	4.46
50	20.97	36.18	25.42	4.08
75	15.76	35.78	26.42	3.46
100	11.82	35.45	26.99	3.10
150	7.76	34.97	27.31	3.14
200	7.45	34.95	27.34	3.29

STATION 48

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.8	<0.1	0.0	-	0.9
10	1.0	0.7	0.0	2.0	1.3
20	-	1.0	2.0	-	-
50	0.8	0.5	-	3.6	1.0
100	1.5	-	8.5	-	0.9
150	2.2	2.0	14.5	1.6	0.6
200	2.5	1.6	22.0	4.1	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.8	<0.1	0.0	-	0.9
10	1.0	0.7	0.0	2.0	1.3
20	1.0	1.0	2.0	2.4	1.2
30	0.9	0.8	3.0	2.8	1.2
50	0.8	0.5	5.0	3.6	1.0
75	1.2	0.9	7.0	3.1	0.9
100	1.5	1.3	8.5	2.6	0.9
150	2.2	2.0	14.5	1.6	0.6
200	2.5	1.6	22.0	4.1	-

STATION 49

DATE Sept. 26, 1954 LAT. 32°12'N. LONG. 78°26'W. TIME 03
DEPTH 347 WIND 4 , 09 BAR. 19 AIR TEMP: dry 25.6°C, wet 22.2°C
HUMIDITY 75% WEATHER 02 CLOUDS: type - , amt. 2 SEA: dir. 09 , amt. 1
SWELL: dir. 11 , amt. 4 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.33	-	-	4.61
10	28.32	36.00	23.06	4.60
20	28.32	36.26	23.26	4.53
49	28.29	36.44	23.40	4.58
97	23.66	35.99	24.51	4.09
146	16.45	35.99	26.42	3.39
196	15.02	36.00	26.76	3.41

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.33	-	-	4.61
10	28.32	36.00	23.06	4.60
20	28.32	36.26	23.26	4.53
30	28.31	36.36	23.34	4.58
50	28.22	36.43	23.42	4.57
75	26.08	36.14	23.89	4.34
100	23.05	35.99	24.69	4.03
150	16.12	35.99	26.50	3.39

STATION 49

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.0	0.0	0.9	0.0
10	1.5	<0.1	2.0	2.9	-
20	1.0	0.2	0.5	0.2	0.0
49	1.0	<0.1	0.0	0.0	0.4
97	0.5	0.4	-	0.0	0.2
146	1.0	-	11.0	0.7	0.3
196	1.0	0.9	5.5	-	0.4
295	1.1	-	-	-	0.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.0	0.0	0.9	0.0
10	1.5	<0.1	2.0	2.9	0.0
20	1.0	0.2	0.5	0.2	0.0
30	1.0	0.1	<0.5	0.1	0.1
50	1.0	<0.1	0.0	0.0	0.4
75	0.8	0.2	3.0	0.0	0.3
100	0.5	0.4	5.5	0.0	0.2
150	1.0	0.7	11.0	0.7	0.3
200	1.0	0.9	5.5	-	0.4
250	1.1	-	-	-	0.2
300	1.1	-	-	-	0.0

STATION 50

DATE Sept. 26, 1954 LAT. 31°56'N. LONG. 78°10'W. TIME 06
DEPTH 709 WIND 4 , 16 BAR. 18 AIR TEMP: dry 26.1°C, wet 22.2°C
HUMIDITY 72% WEATHER 01 CLOUDS: type 8 , amt. 1 SEA: dir. 14 , amt. 1
SWELL: dir. 13 , amt. 4 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.26	36.09	23.15	4.63
9	28.29	36.09	23.14	4.64
18	28.26	36.06	23.13	4.64
44	28.24	36.01	23.10	4.66
89	26.20	36.27	23.95	4.45
134	22.01	36.69	25.52	3.75
178	20.00	36.66	26.05	4.14
269	18.36	36.59	26.42	4.46
360	16.72	36.18	26.50	3.80
450	14.59	35.84	26.73	3.59
542	12.75	35.55	26.89	3.29

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.26	36.09	23.15	4.63
10	28.29	36.09	23.14	4.64
20	28.25	36.05	23.12	4.65
30	28.24	36.02	23.10	4.66
50	28.09	36.04	23.17	4.66
75	27.07	36.17	23.60	4.57
100	24.98	36.41	24.43	4.18
150	21.19	36.68	25.74	3.91
200	19.60	36.64	26.14	4.31
250	18.70	36.60	26.34	4.45
300	17.86	36.44	26.43	4.18
400	15.73	36.02	26.61	3.72
500	13.55	35.68	26.82	3.44

STATION 50

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.6	0.3	0.5	0.7	0.4
9	-	0.3	0.0	0.0	1.5
18	0.3	0.2	0.5	3.3	0.4
44	-	0.2	10.0*	0.0	0.3
89	1.0	0.4	0.0	5.5	1.5
134	0.7	-	3.0	3.0	0.1
178	0.9	0.9	1.0	9.3	0.0
269	0.9	0.3	2.0	20.5	1.0
360	1.6	0.8	1.5	-	1.3
450	1.4	1.4	7.5	1.4	2.2
542	1.7	1.4	-	35.8	0.9

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.6	0.3	0.5	0.7	0.4
10	0.4	0.3	0.0	0.4	1.4
20	0.3	0.2	0.5	3.0	0.4
30	0.4	0.2	0.5	1.8	0.3
50	0.6	0.2	<0.5	0.6	0.5
75	0.9	0.3	<0.5	3.7	1.1
100	0.9	0.5	0.5	4.9	1.1
150	0.8	0.7	2.5	-	<0.1
200	0.9	0.8	1.0	9.3	0.2
250	0.9	0.4	2.0	20.5	0.8
300	1.1	0.5	2.0	-	1.1
400	1.5	1.1	4.0	1.4	1.7
500	1.6	1.4	-	35.8	1.5

STATION 51

DATE Sept. 26, 1954 LAT. 32°19'N. LONG. 77°33'W. TIME 11
DEPTH 658 WIND -, - BAR. 16 AIR TEMP: dry 25.6°C, wet 21.7°C
HUMIDITY 71% WEATHER 02 CLOUDS: type 8, amt. 1 SEA: dir. -, amt. 0
SWELL: dir. 09, amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.29	35.98	23.06	4.64
8	28.29	35.98	23.06	4.64
16	28.27	36.02	23.09	4.64
40	28.28	35.99	23.07	4.61
79	28.26	35.99	23.07	4.62
118	27.60	36.08	23.36	4.64
156	26.37	36.26	23.89	4.48
230	-	36.00	-	3.44
300	12.59	35.52	26.90	3.10
364	10.29	35.27	27.13	3.18
402	9.12	35.14	27.23	3.19

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.29	35.98	23.06	4.64
10	28.28	35.99	23.07	4.64
20	28.27	36.01	23.09	4.63
30	28.28	36.00	23.08	4.62
50	28.28	35.99	23.07	4.61
75	28.27	35.99	23.07	4.62
100	27.98	36.03	23.20	4.63
150	26.63	36.25	23.80	4.52
200	20.90	36.14	25.41	3.78
250	16.02	35.84	26.41	3.30
300	12.59	35.52	26.90	3.10
400	9.18	35.15	27.23	3.19

STATION 51

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.5	-	-	0.1	1.1
8	0.7	0.3	0.0	1.1	0.0
16	0.9	0.4	0.5	-	0.8
40	0.1	0.0	0.5	1.5	0.7
79	0.7	0.3	0.0	-	1.1
118	0.7	0.1	0.0	2.3	0.4
156	1.0	0.3	0.0	0.5	1.1
230	1.5	0.7	3.5	-	0.0
300	1.4	1.5	5.0	3.1	1.3
364	3.3	1.6	2.0	3.9	1.4
402	2.2	1.5	17.0	2.4	1.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.5	-	-	0.1	1.1
10	0.8	0.3	<0.5	1.1	0.2
20	0.8	0.3	0.5	1.3	0.8
30	0.4	0.2	0.5	1.4	0.7
50	0.2	0.1	0.5	1.6	0.8
75	0.6	0.3	<0.5	1.9	1.1
100	0.7	0.2	0.0	2.1	0.7
150	1.0	0.3	0.0	0.5	1.1
200	1.3	0.5	2.0	1.3	0.5
250	1.5	0.9	4.0	2.2	0.4
300	1.4	1.5	5.0	3.1	1.3
400	2.2	1.5	17.0	2.4	1.1

STATION 52

DATE Sept. 26, 1954 LAT. 32°34' N. LONG. 77°48' W. TIME 15
DEPTH 347 WIND 4 , 09 BAR. 18 AIR TEMP: dry 26.7 °C, wet 22.8 °C
HUMIDITY 72 % WEATHER 03 CLOUDS: type 8 , amt. 6 SEA: dir. 09 , amt. 1
SWELL: dir. 14 , amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.22	36.11	23.50	4.71
10	27.14	36.12	23.54	4.72
20	27.10	36.13	23.56	4.70
50	21.06	36.29	25.48	3.99
100	14.04	35.91	26.90	3.27
150	12.45	35.62	27.00	3.16
200	11.63	35.54	27.10	3.26
300	8.64	35.17	27.33	3.26

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.22	36.11	23.50	4.71
10	27.14	36.12	23.54	4.72
20	27.10	36.13	23.56	4.70
30	24.93	36.22	24.30	4.44
50	21.06	36.29	25.48	3.99
75	16.87	36.09	26.40	3.55
100	14.04	35.91	26.90	3.27
150	12.45	35.62	27.00	3.16
200	11.63	35.54	27.10	3.26
250	10.36	35.39	27.21	3.26
300	8.64	35.17	27.33	3.26

STATION 52

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.8	0.5	0.0	0.0
10	0.9	0.3	2.0	-	-
20	1.4	0.1	0.0	2.3	0.4
50	2.0	0.2	3.0	-	1.5
100	1.2	1.1	11.5	1.9	1.1
150	1.8	-	11.0	0.0	1.7
200	1.7	-	6.5	1.6	0.2
300	1.5	1.5	18.0	1.9	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.8	0.5	0.0	0.0
10	0.9	0.3	2.0	1.2	0.2
20	1.4	0.1	0.0	2.3	0.4
30	1.6	0.1	1.0	2.3	0.8
50	2.0	0.2	3.0	2.1	1.5
75	1.6	0.7	7.5	2.0	1.3
100	1.2	1.1	11.5	1.9	1.1
150	1.8	1.2	11.0	0.0	1.7
200	1.7	1.3	6.5	1.6	0.2
250	1.6	1.4	12.5	1.8	0.6
300	1.5	1.5	18.0	1.9	0.9

STATION 53

DATE Sept. 26, 1954 LAT. 32°49'N. LONG. 78°04'W. TIME 18
DEPTH 173 WIND 5 , 16 BAR. 16 AIR TEMP: dry 27.8°C, wet 23.3°C
HUMIDITY 69% WEATHER 01 CLOUDS: type 5 , amt. 4 SEA: dir. - , amt. 0
SWELL: dir. 18 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.02	36.18	23.30	4.69
10	27.68	36.15	23.38	4.74
20	27.62	36.13	23.39	4.71
50	20.30	36.31	25.70	4.05
100	15.33	36.00	26.69	3.39
150	11.76	35.55	27.08	3.20

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.02	36.18	23.30	4.69
10	27.68	36.15	23.38	4.74
20	27.62	36.13	23.39	4.71
30	24.82	36.22	24.34	4.47
50	20.30	36.31	25.70	4.05
75	17.64	36.17	26.27	3.66
100	15.33	36.00	26.69	3.39
150	11.76	35.55	27.08	3.20

STATION 53

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.4	0.1	1.0	0.0	0.0
10	0.4	0.3	0.5	1.3	0.3
20	0.4	0.1	0.0	0.0	0.1
50	0.4	0.5	0.5	0.2	1.4
100	1.4	-	-	1.6	1.1
150	1.9	-	14.5	0.0	1.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.4	0.1	1.0	0.0	0.0
10	0.4	0.3	0.5	1.3	0.3
20	0.4	0.1	0.0	0.0	0.1
30	0.4	0.2	<0.5	0.1	0.5
50	0.4	0.5	0.5	0.2	1.4
75	0.9	-	4.0	0.9	1.2
100	1.4	-	7.5	1.6	1.1
150	1.9	-	14.5	0.0	1.0

STATION 54

DATE Sept. 26, 1954 LAT. 33°03'N. LONG. 78°21'W. TIME 21
DEPTH 31 WIND 2 , 16 BAR. 14 AIR TEMP: dry 27.2 °C, wet 23.9 °C
HUMIDITY 76 % WEATHER 03 CLOUDS: type 4 , amt. 6 SEA: dir. 00 , amt. 0
SWELL: dir. 00 , amt. 0 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.67	36.23	23.77	-
10	26.24	36.17	23.86	4.83
20	26.18	36.18	23.89	4.80

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.67	36.23	23.77	-
10	26.24	36.17	23.86	4.83
20	26.18	36.18	23.89	4.80

STATION 54

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.8	-	1.0	1.1
10	0.5	0.1	2.0	2.4	0.0
20	0.7	0.2	0.0	1.3	0.7

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.8	-	1.0	1.1
10	0.5	0.1	2.0	2.4	0.0
20	0.7	0.2	0.0	1.3	0.7

STATION 55

DATE Sept. 26, 1954 LAT. 33°17'N. LONG. 78°38'W. TIME 01
DEPTH 18 WIND 5 , 14 BAR. 14 AIR TEMP: dry 26.1°C, wet 23.9°C
HUMIDITY 83% WEATHER 03 CLOUDS: type 4 , amt. 7 SEA: dir. - , amt. -
SWELL: dir. 14 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.25	36.03	23.75	4.87
10	26.22	36.05	23.78	4.83

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.25	36.03	23.75	4.87
10	26.22	36.05	23.78	4.83

STATION 55

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.6	0.5	0.0	2.5	0.6
10	0.3	0.3	1.0	0.5	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.6	0.5	0.0	2.5	0.6
10	0.3	0.3	1.0	0.5	0.9

STATION 56

DATE Sept. 27, 1954 LAT. 33°32'N. LONG. 78°55'W. TIME 02
DEPTH 10 WIND 4 , 24 BAR. 15 AIR TEMP: dry 25.0°C, wet 22.8°C
HUMIDITY 83% WEATHER - CLOUDS: type - , amt. 9 SEA: dir. - , amt. -
SWELL: dir. 14 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.58	35.51	23.57	4.93

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.58	35.51	23.57	4.93

STATION 56

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	1.0	0.0	0.0	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	1.0	0.0	0.0	0.2

STATION 57

DATE Sept. 27, 1954 LAT. 33°34'N. LONG. 78°25'W. TIME 05
DEPTH 16 WIND 5 , 31 BAR. 14 AIR TEMP: dry 25.0°C, wet 23.3°C
HUMIDITY 87% WEATHER 00 CLOUDS: type - , amt. 9 SEA: dir. - , amt. -
SWELL: dir. 14 , amt. 1 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.88	36.12	23.94	4.93
10	25.91	36.06	23.88	4.91

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.88	36.12	23.94	4.93
10	25.91	36.06	23.88	4.91

STATION 57

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.2	0.2	0.5	2.1	0.6
10	0.4	-	0.0	4.6	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.2	0.2	0.5	2.1	0.6
10	0.4	-	0.0	4.6	0.4

STATION 58

DATE Sept. 27, 1954 LAT. 33°36'N. LONG. 77°55'W. TIME 08
DEPTH 16 WIND 4 , 17 BAR. 13 AIR TEMP: dry 24.4 °C, wet 22.8 °C
HUMIDITY 87 % WEATHER 00 CLOUDS: type - , amt. 9 SEA: dir. 17 , amt. 2
SWELL: dir. - , amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.67	35.88	23.82	4.76
10	25.71	35.85	23.79	4.75

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.67	35.88	23.82	4.76
10	25.71	35.85	23.79	4.75

STATION 58

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.5	<0.1	1.0	0.0	-
10	0.4	0.5	-	1.5	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.5	<0.1	1.0	0.0	-
10	0.4	0.5	-	1.5	0.4

STATION 59

DATE Sept. 27, 1954 LAT. 33°22'N. LONG. 77°37'W. TIME 11
DEPTH 21 WIND 2 , 27 BAR. 14 AIR TEMP: dry 25.0°C, wet 22.2°C
HUMIDITY 79% WEATHER 01 CLOUDS: type 4 , amt. 5 SEA: dir. - , amt. -
SWELL: dir. 19 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.39	35.91	23.93	4.89
10	25.50	36.11	24.05	4.80

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.39	35.91	23.93	4.89
10	25.50	36.11	24.05	4.80

STATION 59

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.5	0.2	0.0	0.0	0.0
10	0.4	0.5	0.5	0.0	0.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.5	0.2	0.0	0.0	0.0
10	0.4	0.5	0.5	0.0	0.0

STATION 60

DATE Sept. 27, 1954 LAT. 33°08'N. LONG. 77°20'W. TIME 15
DEPTH 219 WIND 4 , 35 BAR. 15 AIR TEMP: dry 26.7 °C, wet 25.0 °C
HUMIDITY 87 % WEATHER 02 CLOUDS: type 3 , amt. 3 SEA: dir. - , amt. -
SWELL: dir. 24 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.84	36.08	23.28	4.63
10	27.90	36.11	23.28	4.65
20	27.77	36.13	23.34	4.66
50	19.94	36.35	25.82	3.96
100	14.32	35.99	26.90	3.29
150	11.74	35.64	27.15	3.27
200	9.45	35.27	27.28	3.20

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.84	36.08	23.28	4.63
10	27.90	36.11	23.28	4.65
20	27.77	36.13	23.34	4.66
30	24.79	36.24	24.36	4.40
50	19.94	36.35	25.82	3.96
75	16.75	36.17	26.49	3.54
100	14.32	35.99	26.90	3.29
150	11.74	35.64	27.15	3.27
200	9.45	35.27	27.28	3.20

STATION 60

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.1	0.0	1.2	0.3
10	0.4	0.2	2.0	0.5	0.1
20	0.4	-	-	-	0.1
50	1.0	0.8	4.5	0.4	-
100	-	1.2	-	1.1	0.4
150	1.4	1.5	4.0	0.2	0.5
200	2.0	1.8	17.0	-	0.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.1	0.0	1.2	0.3
10	0.4	0.2	2.0	0.5	0.1
20	0.4	0.4	2.5	0.5	0.1
30	0.6	0.5	3.0	0.4	0.1
50	1.0	0.8	4.5	0.4	0.2
75	1.1	1.0	4.5	0.8	0.3
100	1.2	1.2	4.5	1.1	0.4
150	1.4	1.5	4.0	0.2	0.5
200	2.0	1.8	17.0	-	0.0

STATION 61

DATE Sept. 27, 1954 LAT. 32°52' N. LONG. 77°06' W. TIME 17
DEPTH 490 WIND -, - BAR. 14 AIR TEMP: dry 25.0 °C, wet 23.9 °C
HUMIDITY 91 % WEATHER 00 CLOUDS: type -, amt. 9 SEA: dir. -, amt. -
SWELL: dir. 09, amt. 1 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.16	36.16	23.24	4.65
7	28.10	36.15	23.25	4.70
14	27.99	36.16	23.29	4.68
35	27.55	36.18	23.45	4.64
69	23.69	36.31	24.74	4.23
104	18.54	36.31	26.16	3.70
138	15.23	36.00	26.71	3.37
204	11.37	35.53	27.14	3.13
265	9.57	35.31	27.29	3.19

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.16	36.16	23.24	4.65
10	28.06	36.15	23.26	4.69
20	27.92	36.16	23.31	4.67
30	27.70	36.17	23.39	4.66
50	25.99	36.25	24.00	4.47
75	22.68	36.31	25.04	4.13
100	19.04	36.31	26.03	3.75
150	14.38	35.90	26.82	3.30
200	11.55	35.55	27.12	3.14
250	9.86	35.35	27.27	3.15

STATION 61

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.3	0.4	0.0	3.7	0.4
7	0.6	0.0	0.0	1.4	-
14	0.7	0.3	0.5	2.9	0.5
35	0.5	0.0	0.0	-	0.6
69	-	0.7	2.0	2.4	0.8
104	0.6	0.7	5.5	2.7	0.7
138	1.4	1.4	4.0	3.7	0.9
209	2.1	1.5	3.0	23.6	0.5
265	2.2	1.3	0.0*	1.4	0.4

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.3	0.4	0.0	3.7	0.4
10	0.6	0.1	<0.5	2.0	0.5
20	0.6	0.2	0.5	2.9	0.5
30	0.5	0.1	<0.5	2.8	0.6
50	0.5	0.3	1.0	2.6	0.7
75	0.6	0.7	2.5	2.5	0.8
100	0.6	0.7	5.5	2.7	0.7
150	1.5	1.4	4.0	-	0.9
200	2.1	1.5	3.0	23.6	0.6
250	2.2	1.4	-	1.4	0.4

STATION 62

DATE Sept. 27, 1954 LAT. 32°40'N. LONG. 76°46'W. TIME 22
DEPTH 826 WIND 5 , 15 BAR. 13 AIR TEMP: dry 26.1°C, wet 23.9°C
HUMIDITY 83% WEATHER 08 CLOUDS: type 6 , amt. 6 SEA: dir. 15 , amt. 2
SWELL: dir. 16 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.23	36.13	23.19	4.60
8	28.26	36.13	23.18	4.60
16	28.26	36.13	23.18	4.66
44	28.19	36.20	23.26	4.65
90	26.94	36.29	23.73	4.56
135	23.96	-	-	3.91
181	22.11	36.87	25.63	3.68
273	17.65	36.52	26.54	3.72
366	15.99	36.27	26.74	3.53
552	8.69	35.28	27.41	3.50
738	4.95	35.22	27.88	-

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.23	36.13	23.19	4.60
10	28.26	36.13	23.18	4.62
20	28.25	36.14	23.19	4.66
30	28.24	36.17	23.22	4.66
50	28.13	36.20	23.28	4.64
75	27.55	36.25	23.50	4.59
100	26.18	36.40	24.05	4.38
150	23.38	36.78	25.19	3.82
200	20.96	36.79	25.89	3.68
250	18.50	36.60	26.39	3.71
300	17.30	36.46	26.58	3.65
400	14.39	36.02	26.91	3.52
500	10.37	35.46	27.27	3.50
600	7.38	35.26	27.59	-

STATION 62

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.9	0.3	0.0	0.6	0.1
8	0.7	0.2	0.0	1.6	0.2
16	1.3	0.3	0.0	-	0.5
44	-	0.4	0.0	-	0.1
90	0.8	0.4	-	1.1	0.7
135	-	0.6	3.0	1.3	0.4
181	0.8	0.6	-	0.0	0.5
273	1.0	0.6	-	1.2	0.1
366	2.4	1.4	7.5	-	0.1
552	2.2	1.7	-	0.6	0.4
738	-	1.3	3.5	1.1	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.9	0.3	0.0	0.6	0.1
10	0.9	0.2	0.0	1.6	0.3
20	1.3	0.3	0.0	1.6	0.5
30	1.2	0.4	0.0	1.5	0.3
50	1.1	0.4	<0.5	1.4	0.2
75	0.9	0.4	1.0	1.2	0.6
100	0.8	0.4	2.0	1.2	0.7
150	0.8	0.6	3.5	0.9	0.5
200	0.8	0.6	4.5	0.3	0.5
250	1.0	0.6	5.0	0.9	0.2
300	1.4	0.8	6.0	1.2	0.1
400	2.4	1.4	7.5	0.9	0.2
500	2.2	1.6	-	0.7	0.3
600	-	1.6	-	0.8	0.4
700	-	1.4	3.5	1.0	0.4

STATION 63

DATE Sept. 28, 1954 LAT. 33°14'N. LONG. 76°25'W. TIME 02
DEPTH 704 WIND 4 , 21 BAR. 14 AIR TEMP: dry 26.1°C, wet 23.9°C
HUMIDITY 83% WEATHER 01 CLOUDS: type - , amt. 1 SEA: dir. 21 , amt. 1
SWELL: dir. 16 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.94	36.08	23.25	-
7	28.07	36.17	23.27	4.70
15	28.14	36.26	23.32	4.69
38	28.01	36.29	23.38	4.62
78	26.36	36.45	24.03	4.39
118	23.62	36.84	25.17	4.17
158	20.75	36.94	26.06	3.89
240	18.43	36.74	26.51	4.06
322	16.43	36.45	26.78	3.66
404	12.71	35.86	27.14	3.31
487	9.76	35.95	27.75	3.44

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.94	36.08	23.25	-
10	28.13	36.21	23.28	4.70
20	28.12	36.26	23.32	4.68
30	28.08	36.27	23.34	4.65
50	27.75	36.31	23.48	4.55
75	26.77	36.41	23.87	4.41
100	24.68	36.70	24.74	4.28
150	21.29	36.93	25.90	3.93
200	19.51	36.85	26.32	4.05
250	18.22	36.72	26.55	4.01
300	16.98	36.54	26.72	3.76
400	12.95	35.87	27.09	3.32

STATION 63

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.9	0.1	3.5	0.0	0.2
7	0.2	0.0	1.0	0.0	0.5
15	1.0	0.0	-	2.9	1.1
38	1.0	0.4	0.0	0.0	4.2
78	0.3	0.4	2.0	1.3	0.2
118	1.1	0.2	3.0	0.5	0.4
158	0.8	-	0.5	2.2	-
240	1.1	0.2	5.5	1.4	0.3
322	1.4	0.6	9.0	1.9	-
404	1.8	1.1	12.5	-	0.1
487	2.1	1.5	14.5	-	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.9	0.1	3.5	0.0	0.2
10	0.5	0.0	1.0	1.0	0.7
20	1.0	0.1	0.5	2.3	1.8
30	1.0	0.3	<0.5	1.0	3.2
50	0.8	0.4	0.5	0.4	3.0
75	0.4	0.4	2.0	1.2	0.2
100	0.8	0.3	2.5	0.9	0.3
150	0.9	0.2	1.0	1.9	0.4
200	1.0	0.2	3.0	1.8	0.4
250	1.1	0.3	6.0	1.5	0.3
300	1.3	0.5	8.0	1.8	0.3
400	1.8	1.1	12.5	-	0.1

STATION 64

DATE Sept. 28, 1954 LAT. 33°29'N. LONG. 76°38'W. TIME 06
DEPTH 369 WIND 2 , 01 BAR. 15 AIR TEMP: dry 26.1°C, wet 23.9°C
HUMIDITY 83% WEATHER 00 CLOUDS: type - , amt. 9 SEA: dir. - , amt. -
SWELL: dir. 16 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.31	36.20	23.22	4.59
8	28.31	36.22	23.23	4.67
16	28.25	36.22	23.25	4.65
40	28.29	36.22	23.24	4.63
82	26.20	36.40	24.05	4.53
123	21.96	36.63	25.49	3.97
165	15.80	36.18	26.72	3.35
207	13.12	35.91	27.09	3.27

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.31	36.20	23.22	4.59
10	28.29	36.22	23.24	4.66
20	28.26	36.22	23.25	4.65
30	28.27	36.22	23.24	4.64
50	28.00	36.26	23.36	4.61
75	26.71	36.37	23.86	4.58
100	24.55	36.50	24.63	4.29
150	17.60	36.32	26.40	3.51
200	13.33	35.94	27.07	3.30

STATION 64

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.1	0.0	0.0	0.0
8	1.5	0.0	1.0	1.5	0.6
16	0.5	-	2.0	1.6	0.2
40	0.8	0.4	0.0	3.5	0.3
82	0.6	<0.1	2.5	2.4	0.4
123	0.8	0.4	2.5	2.2	0.9
165	2.1	1.4	8.0	3.4	0.7
207	1.2	0.9	2.0	-	0.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.1	0.0	0.0	0.0
10	1.3	<0.1	1.5	1.5	0.5
20	0.5	0.2	1.5	2.0	0.2
30	0.7	0.3	1.0	2.7	0.3
50	0.7	0.3	0.5	3.2	0.3
75	0.6	0.1	2.0	2.6	0.4
100	0.7	0.2	2.5	2.4	0.6
150	1.6	1.1	6.0	3.0	0.8
200	1.2	0.9	2.0	-	0.6

STATION 65

DATE Sept. 28, 1954 LAT. 33°44'N. LONG. 76°56'W. TIME 09
DEPTH 39 WIND 3 , 07 BAR. 11 AIR TEMP: dry 26.1°C, wet 23.9°C
HUMIDITY 83% WEATHER 00 CLOUDS: type - , amt. 9 SEA: dir. - , amt. -
SWELL: dir. 16 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.59	36.31	23.86	4.72
10	26.61	36.32	23.86	4.76
20	26.57	36.40	23.93	4.74
30	26.59	36.47	23.98	4.74

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.59	36.31	23.86	4.72
10	26.61	36.32	23.86	4.76
20	26.57	36.40	23.93	4.74
30	26.59	36.47	23.98	4.74

STATION 65

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.6	0.3	0.0	0.6	0.1
10	-	0.3	0.0	2.1	0.0
20	0.7	0.4	1.5	0.8	0.2
30	1.2	-	1.5	4.5	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.6	0.3	0.0	0.6	0.1
10	0.7	0.3	0.0	2.1	0.0
20	0.7	0.4	1.5	0.8	0.2
30	1.2	-	1.5	4.5	0.9

STATION 66

DATE Sept. 28, 1954 LAT. 33°57'N. LONG. 77°11'W. TIME 12
DEPTH 27 WIND 3 , 10 BAR. 15 AIR TEMP: dry 25.0°C, wet 23.9°C
HUMIDITY 91% WEATHER 01 CLOUDS: type 9 , amt. 1 SEA: dir. 10 , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.85	36.48	24.22	4.79
10	25.85	36.45	24.19	4.79

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.85	36.48	24.22	4.79
10	25.85	36.45	24.19	4.79

STATION 66

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.6	0.3	0.5	2.8	1.3
10	1.1	0.1	0.5	0.7	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.6	0.3	0.5	2.8	1.3
10	1.1	0.1	0.5	0.7	-

STATION 67

DATE Sept. 28, 1954 LAT. 34°10'N. LONG. 77°30'W. TIME 14
DEPTH 18 WIND 2 , 09 BAR. 17 AIR TEMP: dry 26.1°C, wet 24.4°C
HUMIDITY 87% WEATHER 01 CLOUDS: type 4 , amt. 1 SEA: dir. - , amt. -
SWELL: dir. 18 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.85	36.21	24.01	4.80
10	25.73	36.24	24.07	4.75

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.85	36.21	24.01	4.80
10	25.73	36.24	24.07	4.75

STATION 67

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.5	0.4	0.0	0.9	0.5
10	1.5	0.9	0.0	1.5	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.5	0.4	0.0	0.9	0.5
10	1.5	0.9	0.0	1.5	0.2

STATION 68

DATE Sept. 28, 1954 LAT. 34°22'N. LONG. 77°09'W. TIME 17
DEPTH 18 WIND 2 , 09 BAR. 18 AIR TEMP: dry 26.1°C, wet 24.4°C
HUMIDITY 87% WEATHER 01 CLOUDS: type 8 , amt. 3 SEA: dir. - , amt. -
SWELL: dir. 18 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.96	36.24	24.00	4.83
10	25.65	36.26	24.11	4.87

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.96	36.24	24.00	4.83
10	25.65	36.26	24.11	4.87

STATION 68

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.1	0.1	1.5	0.1	0.1
10	1.2	0.1	0.0	1.6	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.1	0.1	1.5	0.1	0.1
10	1.2	0.1	0.0	1.6	-

STATION 69

DATE Sept. 28, 1954 LAT. 34°32'N. LONG. 76°49'W. TIME 19
DEPTH 16 WIND 2 , 09 BAR. 17 AIR TEMP: dry 26.7°C, wet 24.4°C
HUMIDITY 83% WEATHER 01 CLOUDS: type 4 , amt. 1 SEA: dir. - , amt. -
SWELL: dir. 18 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.32	36.35	23.97	-
10	25.54	36.31	24.19	4.91

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.32	36.35	23.97	-
10	25.54	36.31	24.19	4.91

STATION 69

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.3	0.0	0.0	2.7	0.0
10	1.4	1.4	0.0	0.8	0.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.3	0.0	0.0	2.7	0.0
10	1.4	1.4	0.0	0.8	0.5

STATION 70

DATE Sept. 28, 1954 LAT. 34°18'N. LONG. 76°32'W. TIME 22
DEPTH 25 WIND 2 , 14 BAR. 16 AIR TEMP: dry 26.7°C, wet 23.9°C
HUMIDITY 79% WEATHER 01 CLOUDS: type 4 , amt. 1 SEA: dir. 14 , amt. 1
SWELL: dir. 17 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.49	36.21	23.81	4.80
10	25.92	36.23	24.01	4.85
20	25.89	36.21	24.00	4.83

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.49	36.21	23.81	4.80
10	25.92	36.23	24.01	4.85
20	25.89	36.21	24.00	4.83

STATION 70

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.9	0.6	0.0	-	0.3
10	2.5	0.0	1.5	0.9	0.6
20	1.0	-	0.0	0.1	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.9	0.6	0.0	-	0.3
10	2.5	0.0	1.5	0.9	0.6
20	1.0	-	0.0	0.1	-

STATION 71

DATE Sept. 29, 1954 LAT. 34°02'N. LONG. 76°16'W. TIME 01
DEPTH 117 WIND 6 , 05 BAR. 17 AIR TEMP: dry 26.7°C, wet 23.9°C
HUMIDITY 79% WEATHER 01 CLOUDS: type 4 , amt. 1 SEA: dir. 05 , amt. 1
SWELL: dir. 17 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.77	36.18	23.70	4.76
10	26.72	36.24	23.76	4.77
20	26.71	36.28	23.80	4.82
50	25.62	36.30	24.15	4.80
100	15.13	36.08	26.79	3.36

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.77	36.18	23.70	4.76
10	26.72	36.24	23.76	4.77
20	26.71	36.28	23.80	4.82
30	26.54	36.30	23.86	4.82
50	25.62	36.30	24.15	4.80
75	21.73	36.23	25.25	4.30
100	15.13	36.08	26.79	3.36

STATION 71

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.3	0.0	5.1	0.7
10	1.3	0.1	1.0	-	1.2
20	0.8	-	0.0	1.5	0.6
50	2.0	0.2	0.0	1.7	0.7
100	2.6	1.8	-	1.4	0.8

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.3	0.0	5.1	0.7
10	1.3	0.1	1.0	3.3	1.2
20	0.8	0.1	0.0	1.5	0.6
30	1.2	0.1	0.0	1.6	0.6
50	2.0	0.2	0.0	1.7	0.7
75	2.3	1.0	-	1.6	0.8
100	2.6	1.8	-	1.4	0.8

STATION 72

DATE Sept. 29, 1954 LAT. 33°52'N. LONG. 75°59'W. TIME 04
DEPTH 665 WIND 4 , 15 BAR. 18 AIR TEMP: dry 26.7°C, wet 24.4°C
HUMIDITY 83% WEATHER 01 CLOUDS: type 4 , amt. 1 SEA: dir. 16 , amt. 1
SWELL: dir. 17 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.27	36.22	23.24	4.65
8	28.28	36.20	23.23	4.66
15	28.22	36.24	23.28	4.64
39	28.23	36.26	23.29	4.64
77	27.60	36.44	23.63	4.64
114	25.24	36.65	24.53	4.20
151	21.73	36.82	25.69	3.78
224	15.46	36.22	26.83	3.38
265	11.87	35.71	27.18	3.18

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.27	36.22	23.24	4.65
10	28.26	36.21	23.24	4.65
20	28.22	36.24	23.28	4.64
30	28.23	36.25	23.27	4.64
50	28.23	36.31	23.33	4.64
75	27.68	36.43	23.60	4.64
100	26.27	36.58	24.16	4.36
150	21.82	36.82	25.67	3.79
200	17.54	36.46	26.52	3.51
250	13.19	35.91	27.08	3.25

STATION 72

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.3	0.6	0.0	1.8	0.8
8	1.5	0.1*	<0.5	0.8	0.8
15	1.4	1.2	0.0	0.0	1.0
39	1.3	0.9	1.0	0.6	0.5
77	1.1	0.5	1.5	-	0.5
114	1.3	-	2.5	26.7	1.2
151	0.8	0.3	0.0*	-	0.6
224	2.0	0.9	7.5	1.2	1.2
265	2.6	1.5	11.0	2.2	1.2

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.3	0.6	0.0	1.8	0.8
10	1.5	1.0	<0.5	0.6	0.9
20	1.4	1.1	<0.5	0.1	0.9
30	1.3	1.0	0.5	0.4	0.7
50	1.2	0.8	1.0	-	0.5
75	1.1	0.5	1.5	-	0.5
100	1.2	0.4	2.0	26.7	1.0
150	0.8	0.3	4.0	-	0.6
200	1.7	0.7	6.5	-	1.0
250	2.4	1.3	9.5	1.8	1.2

STATION 73

DATE Sept. 29, 1954 LAT. 34°09'N. LONG. 75°24'W. TIME 07
DEPTH 3017 WIND 4 , 22 BAR. 19 AIR TEMP: dry 26.7°C, wet 25.0°C
HUMIDITY 87% WEATHER 63 CLOUDS: type - , amt. 9 SEA: dir. 22 , amt. 2
SWELL: dir. - , amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.09	36.17	23.27	4.60
8	28.18	36.30	23.33	4.62
15	28.15	36.30	23.34	4.61
39	28.14	36.29	23.34	4.51
76	27.96	36.33	23.43	4.65
112	26.58	36.46	23.97	4.43
147	25.62	36.59	24.37	4.26
218	18.76	36.56	26.29	3.66
287	13.61	35.94	27.01	3.35
300*	12.36*	35.26*	26.74	3.18
355	11.10	35.59	27.23	3.16
390	9.92	35.49*	27.37	3.18
480	9.02	35.37	27.42	3.25
560	-	35.38	-	-
652	7.18	35.50*	27.81	3.44
721	5.26	35.82*	28.31	5.11

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.09	36.17	23.27	4.60
10	28.17	36.30	23.34	4.62
20	28.15	36.30	23.34	4.58
30	28.15	36.29	23.34	4.53
50	28.09	36.29	23.36	4.59
75	27.98	36.33	23.42	4.65
100	27.00	36.42	23.81	4.50
150	25.33	36.59	24.46	4.23
200	20.48	36.58	25.86	3.79
250	15.30	36.26	26.89	3.64
300	12.90	35.87	27.10	3.18
400	10.19	35.45	27.29	3.19
500	8.89	35.37	27.44	3.26
600	7.83	-	-	3.36

STATION 73

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.9	0.5	0.0	0.6	0.3
8	1.6	1.0	0.5	2.8	0.7
15	1.1	0.2	1.5	0.7	0.3
39	1.7	-	0.0	1.5	0.8
76	1.2	-	0.5	2.9	0.3
112	0.7	0.1	2.5	2.2	0.2
147	0.7	0.3	<0.5	-	0.5
218	1.3	1.4	1.0	4.1	0.8
287	3.1	1.6	4.5	0.8	0.5
300	1.8	1.4	5.0	17.2*	0.2
355	-	1.7	0.0	0.8	0.1
390	-	2.4	1.5	0.1	0.5
480	-	2.6	-	1.2	0.3
560	-	1.8	12.5	-	0.4
652	2.8	1.4	12.5	-	0.2
721	1.3	1.4	2.0	1.0	0.2

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.9	0.5	0.0	0.6	0.3
10	1.4	0.7	1.0	2.0	0.6
20	1.2	-	1.0	0.8	0.4
30	1.5	-	0.5	1.2	0.6
50	1.5	-	<0.5	1.9	0.6
75	1.2	-	0.5	2.9	0.3
100	0.8	-	2.0	2.4	0.2
150	0.7	0.3	<0.5	2.9	0.5
200	1.2	1.2	1.0	3.8	0.7
250	2.2	1.5	2.5	2.5	0.7
300	1.8	1.4	5.0	0.8	0.2
400	-	2.4	2.0	0.1	0.5
500	-	2.4	9.0	1.2	0.3
600	-	1.6	12.5	1.1	0.3
700	1.8	1.4	5.0	1.0	0.2

STATION 74

DATE Sept. 30, 1954 LAT. 34°22'N. LONG. 75°38'W. TIME 05
DEPTH 1372 WIND 9 , 15 BAR. 22 AIR TEMP: dry 26.1°C, wet 23.9°C
HUMIDITY 83% WEATHER 60 CLOUDS: type 8 , amt. 6 SEA: dir. 15 , amt. 3
SWELL: dir. 12 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.81	36.31	23.79	4.76
8	26.82	36.35	23.81	4.76
16	26.77	36.36	23.84	4.76
45	26.46	36.32	23.90	4.74
80	21.04	36.49	25.64	3.96
112	16.57	36.29	26.62	3.35
138	15.12	36.18	26.87	3.37
183	12.74	35.86	27.13	3.34
229	11.61	35.70	27.23	3.44
328	9.49	35.42	27.39	3.17
436	7.59	35.13	27.46	3.96
550	5.00	35.05	27.74	5.37

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.81	36.31	23.79	4.76
10	26.81	36.35	23.82	4.76
20	26.72	36.34	23.84	4.76
30	26.61	36.32	23.86	4.75
50	25.65	36.37	24.20	4.62
75	21.78	36.49	25.43	4.06
100	17.90	36.36	26.36	3.50
150	14.36	36.08	26.96	3.35
200	12.31	35.80	27.17	3.39
250	11.13	35.64	27.27	3.38
300	10.05	35.50	27.35	3.21
400	8.21	35.22	27.43	3.64
500	6.21	35.06	27.59	4.68

STATION 74

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.0	0.0	0.9	0.3
8	1.7	0.9	1.5	0.0	0.3
16	2.0	0.1	0.0	1.3	0.2
45	-	0.8	2.0	0.7	0.3
80	2.5	0.5	0.5	0.7	1.4
112	1.5	1.1	1.5	2.8	1.3
138	1.6	1.5	2.0	7.3	0.0
183	2.4	-	1.5	1.5	0.9
229	2.1	1.7	2.0	1.4	1.1
328	2.3	2.0	16.0	-	0.7
436	3.4	2.0	0.0*	-	0.1
550	2.7	2.0	12.5	1.0	-

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.0	0.0	0.9	0.3
10	1.8	0.7	1.0	0.4	0.3
20	2.0	0.2	0.5	1.2	0.3
30	2.1	0.4	1.0	1.0	0.2
50	2.3	0.8	2.0	0.7	0.5
75	2.4	0.5	0.5	0.7	1.3
100	1.9	0.9	1.0	2.0	1.4
150	1.8	1.5	2.0	5.8	0.2
200	2.3	1.6	1.5	1.5	1.0
250	2.2	1.8	5.0	-	1.0
300	2.2	1.9	12.0	-	0.8
400	3.0	2.0	15.0	-	0.3
500	3.0	2.0	13.5	1.0	-

STATION 75

DATE Sept. 29, 1954 LAT. 34°40'N. LONG. 75°53'W. TIME 02
DEPTH 34 WIND 11 , 15 BAR. 22 AIR TEMP: dry 26.1°C, wet 23.9°C
HUMIDITY 83% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 15 , amt. 3
SWELL: dir. 19 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.67	36.12	23.69	-
10	26.72	36.09	23.65	4.83
20	26.51	36.18	23.78	4.77
30	23.50	36.18	24.70	-

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.67	36.12	23.69	-
10	26.72	36.09	23.65	4.83
20	26.51	36.18	23.78	4.77
30	23.50	36.18	24.70	-

STATION 75

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.1	0.0	0.2	0.0
10	1.6	0.4	3.0	0.7	0.4
20	1.6	0.0	0.0	0.9	1.0
30	1.2	1.0	3.0	0.3	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.1	0.0	0.2	0.0
10	1.6	0.4	3.0	0.7	0.4
20	1.6	0.0	0.0	0.9	1.0
30	1.2	1.0	3.0	0.3	0.4

STATION 77

DATE Sept. 29, 1954 LAT. 35°01'N. LONG. 75°45'W. TIME 23
DEPTH 24 WIND 6 , 19 BAR. 22 AIR TEMP: dry 26.1°C, wet 23.9°C
HUMIDITY 83% WEATHER 03 CLOUDS: type 0 , amt. 3 SEA: dir. 19 , amt. 2
SWELL: dir. 19 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.79	35.23	23.29	5.01
10	25.84	35.22	23.27	4.90
20	25.43	35.66	23.73	4.78

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.79	35.23	23.29	5.01
10	25.84	35.22	23.27	4.90
20	25.43	35.66	23.73	4.78

STATION 77

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.4	-	0.0	-	0.6
10	0.9	0.1	2.0	1.7	0.9
20	2.0	-	1.5	-	0.7

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.4	-	0.0	-	0.6
10	0.9	0.1	2.0	1.7	0.9
20	2.0	-	1.5	-	0.7

STATION 78

DATE Sept. 29, 1954 LAT. 35°08'N. LONG. 75°22'W. TIME 21
DEPTH 24 WIND 7 , 15 BAR. 22 AIR TEMP: dry 26.7 °C, wet 23.3 °C
HUMIDITY 75 % WEATHER 02 CLOUDS: type 8 , amt. 1 SEA: dir. 15 , amt. 1
SWELL: dir. 14 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.98	35.68	23.57	4.92
10	25.68	36.02	23.92	4.91
20	24.80	36.02	24.19	4.82

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.98	35.68	23.57	4.92
10	25.68	36.02	23.92	4.91
20	24.80	36.02	24.19	4.82

STATION 78

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.1	0.0	1.7	1.3
10	0.6	0.2	5.0	1.6	0.2
20	6.6*	0.1	0.0	1.6	0.1

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.1	0.0	1.7	1.3
10	0.6	0.2	5.0	1.6	0.2
20	-	0.1	0.0	1.6	0.1

STATION 79

DATE Sept. 29, 1954 LAT. 34°54'N. LONG. 75°04'W. TIME 17
DEPTH 2707 WIND 4 , 14 BAR. 22 AIR TEMP: dry 28.3°C, wet 24.4°C
HUMIDITY 73% WEATHER 02 CLOUDS: type 8 , amt. 3 SEA: dir. 14 , amt. 1
SWELL: dir. 15 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.27	36.02	23.09	4.67
6	28.16	36.04	23.15	4.67
12	28.14	36.05	23.16	4.66
28	28.02	36.09	23.23	4.64
52	26.57	36.09	23.70	4.74
77	25.69	36.17	24.03	4.73
94	21.43	36.27	25.36	4.05
131	16.97	36.29	26.53	3.36
159	14.75	35.95	26.78	3.31
217	13.18	35.70	26.92	3.42
264	12.01	35.61	27.08	3.54
307	9.71	35.26	27.22	3.23

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.27	36.02	23.09	4.67
10	28.15	36.05	23.16	4.66
20	28.10	36.07	23.19	4.64
30	27.88	36.09	23.27	4.65
50	26.67	36.09	23.66	4.74
75	25.81	36.14	23.97	4.73
100	20.64	36.28	25.58	3.89
150	15.46	36.06	26.70	3.31
200	13.64	35.78	26.88	3.38
250	12.36	35.64	27.03	3.53
300	10.10	35.33	27.21	3.31

STATION 79

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.6	0.6	0.0	0.5	1.2
6	0.4	0.1	1.5	0.0	1.1
12	0.8	0.1	-	0.5	1.5
28	-	0.3	2.0	2.2	0.1
52	0.8	0.1	0.0	1.7	0.3
77	1.2	0.7	0.0	0.1	-
94	-	1.0	4.0	-	1.0
131	1.4	1.1	1.0	1.5	0.0
153	1.4	0.7	4.5	1.9	1.1
217	1.4	1.3	13.5	2.5	0.5
264	-	1.5	3.0*	2.8	1.0
307	1.9	1.6	20.5	2.0	1.0

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.6	0.6	0.0	0.5	1.2
10	0.6	0.1	1.5	0.4	1.4
20	0.8	0.2	2.0	1.4	0.8
30	0.8	0.3	1.5	2.2	0.1
50	0.8	0.1	0.0	1.7	0.3
75	1.2	0.7	0.0	0.1	0.7
100	1.3	1.0	3.5	0.7	0.8
150	1.4	0.7	4.5	1.9	1.1
200	1.4	1.2	11.0	2.3	0.7
250	1.6	1.4	16.0	2.7	0.8
300	1.9	1.6	20.5	2.0	1.0

STATION 80

DATE Sept. 29, 1954 LAT. 34°34'N. LONG. 74°55'W. TIME 12
DEPTH 3236 WIND 2 , 99 BAR. 21 AIR TEMP: dry 26.1°C, wet 23.9°C
HUMIDITY 83% WEATHER 60 CLOUDS: type 8 , amt. 6 SEA: dir. - , amt. -
SWELL: dir. 25 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.16	36.12	23.21	4.65
10	28.16	36.13	23.21	4.74
19	28.12	36.09	23.20	4.69
48	27.89	36.18	23.34	4.69
97	25.53	36.48	24.32	4.20
146	22.01	36.80	25.60	4.41
196	20.11	36.80	26.12	4.21
295	17.28	36.51	26.62	4.15
360*	12.79	35.82	27.09	3.57
395	14.12	35.94	26.91	3.82
473	10.15	35.40	27.26	3.10
495	10.68	35.44	27.19	3.14
574*	9.41	35.26	27.27	3.08
654*	8.74	35.16	27.31	3.07
1044*	-	35.16	0.00	3.17
1418*	3.92	35.08	27.88	-

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.16	36.12	23.21	4.65
10	28.16	36.13	23.21	4.74
20	28.10	36.09	23.20	4.69
30	28.07	36.12	23.23	4.69
50	27.82	36.19	23.37	4.66
75	26.73	36.34	23.83	4.33
100	25.27	36.51	24.42	4.22
150	21.85	36.80	25.65	4.39
200	20.08	36.80	26.13	4.21
250	19.09	36.74	26.34	4.21
300	16.61	36.42	26.71	4.14
400	13.86	35.90	26.93	3.78

STATION 80

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.9	0.9	0.0	1.2	1.0
10	0.8	0.1	0.5	0.0	0.2
19	0.3	0.1	2.0	-	0.2
48	0.7	0.7	1.5	0.2	0.3
97	-	-	0.0	0.2	0.5
146	1.1	<0.1	0.0	-	0.3
196	-	0.9	0.0	1.7	1.0
295	-	1.4	4.0	0.0	0.9
395	1.7	1.9	-	1.8	0.5
495	1.9	2.3	4.5	14.4	0.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.9	0.9	0.0	1.2	1.0
10	0.8	0.1	0.5	0.0	0.2
20	0.3	0.1	2.0	-	0.2
30	0.4	0.3	2.0	-	0.3
50	0.7	0.7	1.5	0.2	0.3
75	0.8	0.6	0.5	0.2	0.4
100	0.9	0.4	0.0	0.2	0.5
150	1.1	<0.1	0.0	0.9	0.3
200	-	0.9	0.0	1.7	1.0
250	-	1.1	2.0	0.9	0.9
300	-	1.4	4.0	0.0	0.9
400	1.7	1.9	4.5	1.8	0.5
500	-	2.3	4.5	14.4	0.5

STATION Special 9

DATE Sept. 12, 1954 LAT. 27°60'N. LONG. 79°00'W. TIME 08
DEPTH 841 WIND 7 , 25 BAR. 30 AIR TEMP: dry 28.3°C, wet 26.1°C
HUMIDITY 84% WEATHER 95 CLOUDS: type 9 , amt. 9 SEA: dir. 25 , amt. 3
SWELL: dir. 01 , amt. 3 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.36	36.09	23.12	4.74
9	28.39	36.11	23.12	4.62
18	28.43	36.16	23.15	4.60
46	28.39	36.12	23.13	4.61
92	24.65	36.57	24.65	4.90
138	22.10	36.68	25.48	4.66
186	20.11	36.64	26.00	4.70
281	18.64	36.54	26.31	4.75
377	17.95	36.50	26.45	4.84
474	17.11	36.37	26.56	4.50
670	12.11	35.57	27.03	3.57
768	9.49	35.22	27.23	3.44

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.36	36.09	23.12	4.74
10	28.40	36.12	23.13	4.62
20	28.42	36.15	23.14	4.60
30	28.40	36.13	23.13	4.61
50	28.36	36.17	23.18	4.66
75	28.09	36.44	23.47	4.85
100	23.53	36.60	25.01	4.84
150	21.63	36.67	25.61	4.67
200	19.66	36.62	26.10	4.70
250	19.00	36.57	26.24	4.73
300	18.49	36.54	26.35	4.80
400	17.90	36.49	26.45	4.77
500	16.75	36.31	26.60	4.33
600	14.15	35.90	26.87	3.80

STATION Special 9

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.3	0.1	2.0	1.9	1.6
9	0.3	0.3	0.5	1.5	1.2
18	1.0	0.8	0.0	1.6	-
46	1.0	0.3	0.0	0.0	0.0
92	0.5	0.1	1.0	0.0	1.0
138	0.6	0.5	1.0	0.6	1.5
186	1.1	0.2	3.5	1.8	1.6
281	0.5	0.5	0.0	0.1	1.0
377	0.5	0.6	-	1.8	1.7
474	1.4	1.0	3.0	-	1.5
670	1.7	1.5	4.0	-	0.7
768	1.4	0.9	19.0	3.0	2.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.3	0.1	2.0	1.9	1.6
10	0.3	0.3	0.5	1.5	1.2
20	1.0	0.8	0.0	1.5	0.8
30	1.0	0.6	0.0	0.9	0.5
50	1.0	0.3	<0.5	0.0	0.1
75	0.7	0.2	0.5	0.0	0.6
100	0.5	0.2	1.0	0.1	1.1
150	0.7	0.4	1.5	0.9	1.5
200	1.0	0.2	3.0	1.6	1.5
250	0.7	0.4	1.0	0.7	1.2
300	0.5	0.5	0.5	0.5	1.1
400	0.7	0.7	2.0	1.8	1.6
500	1.4	1.1	3.0	-	1.4
600	1.6	1.3	3.5	-	1.0
700	1.6	1.3	8.5	3.0	1.1